XR-CA430X

SERVICE MANUAL

US Model
Canadian Model

Ver 1.1 2003.01

Model Name Using Similar Mechanism	XR-CA400
Tape Transport Mechanism Type	MG-25F-136

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23 watts per channel minimum continuous average power into 4 ohms,
4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

Cassette Player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 – 18,000 Hz
Signal-to-noise ratio	

Cassette type	
TYPE II, IV	61 dB
TYPE I	58 dB

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	11 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	
	0.7 % (stereo), 0.5 % (mono)
Separation	33 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	50 W × 4 (at 4 ohms)

General

Outputs	Audio outputs (1) Power antenna relay control terminal Power amplifier control terminal
Inputs	BUS control input terminal BUS audio input terminal Antenna input terminal
Tone controls	Bass ±10 dB at 20 Hz Treble ±10 dB at 20 Hz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 178 mm ($7^1/_8$ × 2 × $7^1/_8$ in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm ($7^1/_4$ × $2^1/_8$ × $6^3/_8$ in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb 10 oz)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Note
This unit cannot be connected to a digital preamplifier or an equalizer.

Design and specifications are subject to change without notice.

FM/AM CASSETTE CAR STEREO

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e Vehicle Company
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Notes on chip component replacement

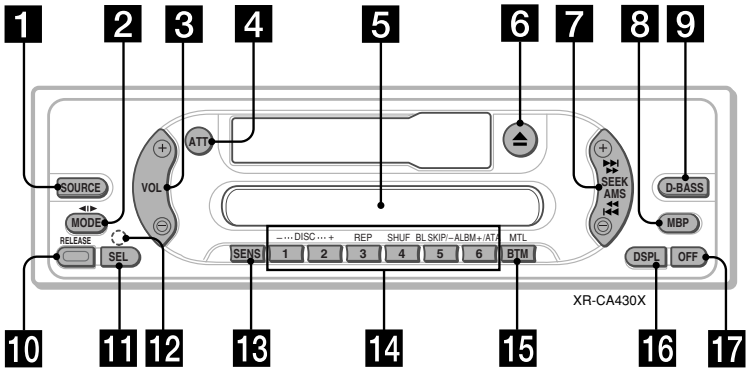
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Location of controls

Refer to the pages listed for details.



1 SOURCE (Power on/Tape/Radio/CD/MD) select button
2 MODE (◄I►) button
Selecting the source.
3 VOL +/– button
4 ATT (attenuate) button
5 Display window
6 ⏏ (eject) button 8
7 SEEK/AMS button
Tape:
Fast-forwarding, reversing a tape.
Radio:
Tuning in stations automatically.
Finding a station manually.
CD (MP3 files)/MD:
Skipping tracks.
8 MBP (My Best sound Position) button 12
9 D-BASS button 12
10 RELEASE (front panel release) button
11 SEL (select) button
Selecting items.
12 RESET button (located on the front side of the unit, behind the front panel) 6
13 SENS button
Storing the stations with the strongest signals.
14 Number buttons
Tape:
③: REP (Repeat)
⑤: BL SKIP (Blank Skip)
⑥: ATA (Automatic Tuner Activation)
Radio:
Storing the desired station on each number button.
CD (MP3 files)/MD:
①: DISC –
②: DISC +
③: REP (Repeat)
④: SHUF (Shuffle)
MP3 files:
⑤: ALBM –
⑥: ALBM +
15 BTM/MTL (Best Tuning Memory/Metal) button 9
16 DSPL (display mode change) button
17 OFF (Stop/Power off) button*

* **Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press (OFF) on the unit for 2 seconds to turn off the clock display.
Otherwise, the clock display does not turn off and this causes battery drain.

Setting the clock

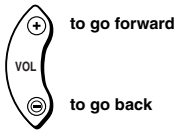
The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

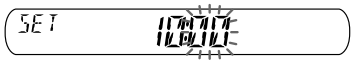
1 Press (DSPL) for 2 seconds.

The hour indication flashes.

❶ Press either side of (VOL) to set the hour.

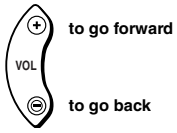


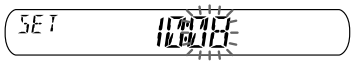
❷ Press (SEL).



The minute indication flashes.

❸ Press either side of (VOL) to set the minute.



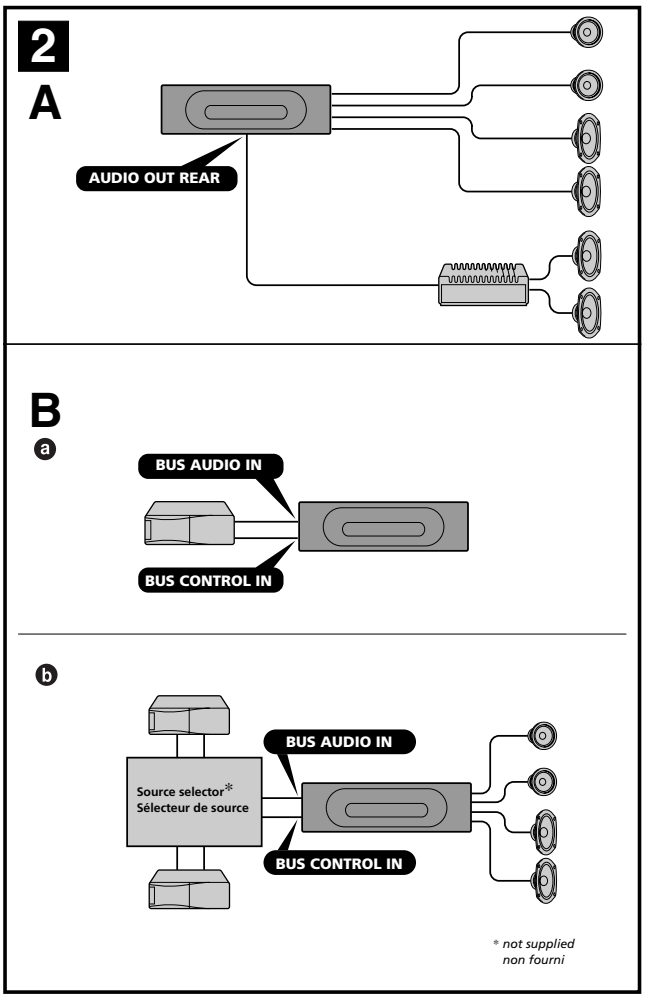


2 Press (DSPL).

The clock starts.

After the clock setting is completed, the display returns to normal play mode.

Installation/Connections



Equipment used in illustrations (not supplied)
Appareils utilisés dans les illustrations (non fournis)

- Front speaker / Haut-parleur frontal
- Power amplifier / Amplificateur de puissance
- Rear speaker / Haut-parleur arrière
- CD/MD changer / Changeur de CD/MD

Cautions

- This unit is designed for negative ground 12 V DC operation only.
- Do not get the wires under a screw, or caught in moving parts (e.g., seat railing).
- Before making connections, turn the car ignition off to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- **Run all ground wires to a common ground point.**
- Be sure to insulate any loose unconnected wires with electrical tape for safety.

Notes on the power supply cord (yellow)

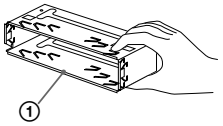
- When connecting this unit in combination with other stereo components, the connected car circuit's rating must be higher than the sum of each component's fuse.
- When no car circuits are rated high enough, connect the unit directly to the battery.

Parts list (1)

The numbers in the list are keyed to those in the instructions.

Caution

Handle the bracket ① carefully to avoid injuring your fingers.



Connection example (2)

***Notes* (2-A)**

- *Be sure to connect the ground cord before connecting the amplifier.*
- *If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.*

***Tip* (2-B-b)**

For connecting two or more CD/MD changers, the source selector XA-C30 (optional) is necessary.

Connection diagram (3)

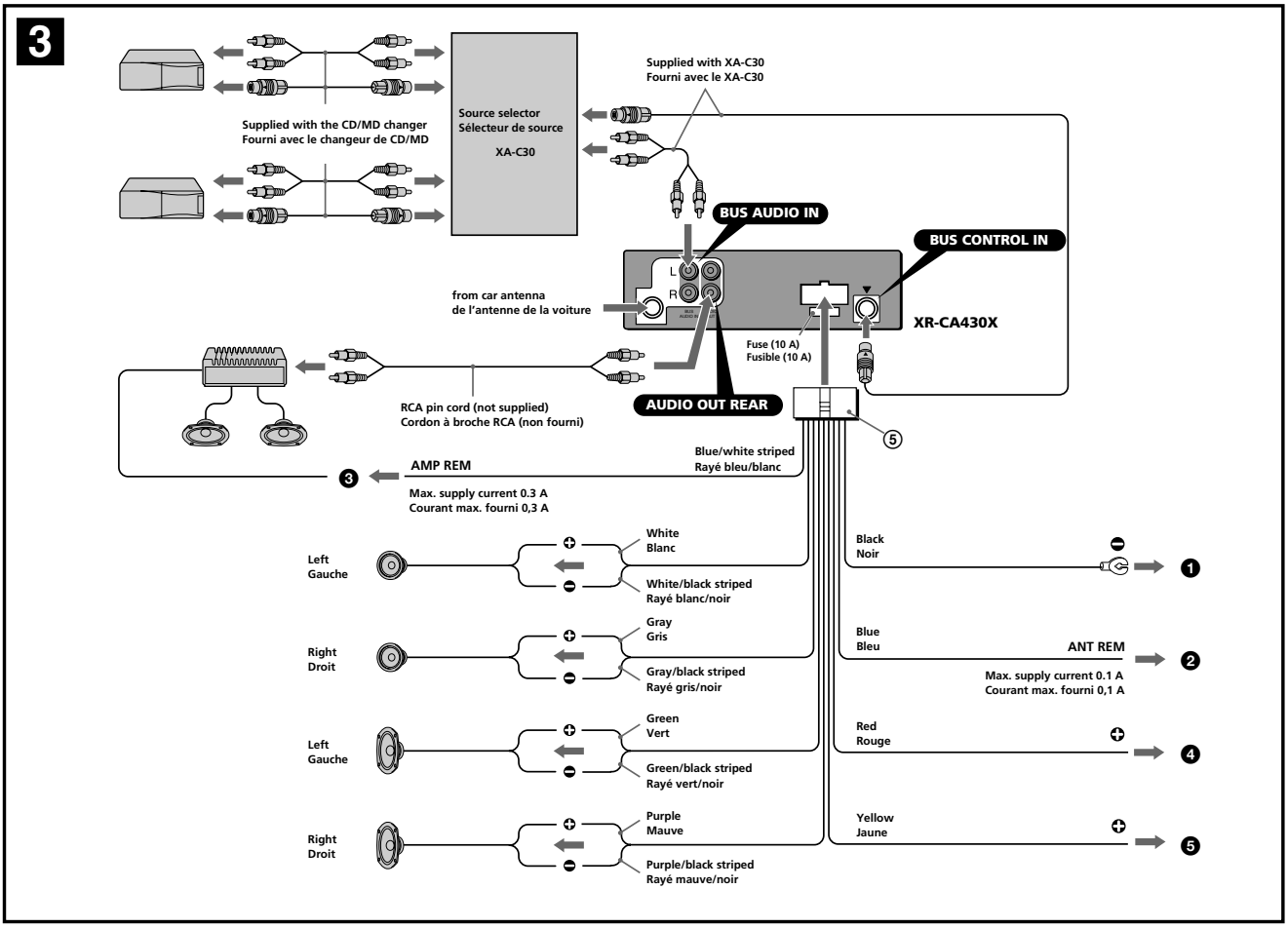
❶ **To a metal surface of the car**
First connect the black ground lead, then connect the yellow and red power input leads.

❷ **To the power antenna control lead or power supply lead of antenna booster amplifier**
Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**
Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energised at all times.*
  Be sure to connect the black ground to it first.
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energised at all times**
Be sure to connect the black ground to it first.



Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection
- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker wires installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker cords to each other.*

Précautions

- Cet appareil est exclusivement conçu pour fonctionner sur une tension de 12 V CC avec masse négative.
- Évitez de fixer des vis sur les câbles ou de coincer ceux-ci dans des pièces mobiles (par exemple, armature de siège).
- Avant d'effectuer des raccordements, éteignez le moteur pour éviter les courts-circuits.
- Brancher les fils d'entrée d'alimentation **jaune** et **rouge** seulement après avoir terminé tous les autres branchements.
- **Rassembler tous les fils de terre en un point de masse commun.**
- Veillez à fixer avec du ruban isolant tout fil lâche non raccordé.

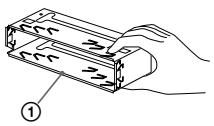
Remarques sur le cordon d'alimentation (jaune)
- Lorsque cet appareil est raccordé à d'autres éléments stéréo, la valeur nominale du circuit raccordé de la voiture doit être supérieure à la somme des fusibles de chaque élément.
- Si aucun circuit de la voiture n'est assez puissant, raccordez directement l'appareil à la batterie.

Liste des composants (1)

Les numéros de l'illustration correspondent à ceux des instructions.

Attention

Manipulez avec précaution le support ① pour éviter de vous blesser aux doigts.



Exemple de raccordement (2)

***Remarques* (2-A)**
- *Raccordez d'abord le fil de masse avant de connecter l'amplificateur.*
- *Si vous raccordez un amplificateur de puissance et que vous n'utilisez pas l'amplificateur intégré, le bip sonore est désactivé.*

***Conseil* (2-B-❺)**
Dans le cas du raccordement de deux changeurs de CD/MD ou plus, le sélecteur de source XA-C30 (optionnel) est indispensable.

Schémas de connexion (3)

❶ **à un point métallique de la voiture**
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.

❷ **vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne**
Remarque
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*

❸ **pour effectuer le raccordement à AMP REMOTE IN de l'amplificateur de puissance en option**
Cette connexion s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ **à la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires**
Remarque
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est toujours sous tension.*
  Raccordez d'abord le fil de masse noir.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir "Remarques sur les fils de commande et d'alimentation".*

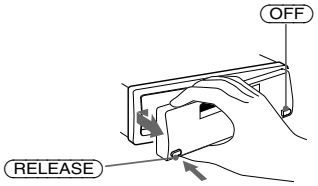
❺ **à la borne +12 V qui est alimentée en permanence**
Raccordez d'abord le fil de masse noir.

Remarques sur les fils de commande et d'alimentation
- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez l'appareil sous tension.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière latérale, vous devez raccorder le fil de commande d'antenne électrique (bleu) ou le fil d'entrée d'alimentation d'accessoire (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

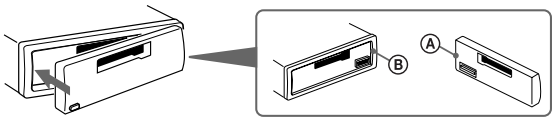
Connexion pour la conservation de la mémoire
Lorsque le fil d'entrée d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleur au châssis de la voiture et ne raccordez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les fils des haut-parleurs de l'appareil.*

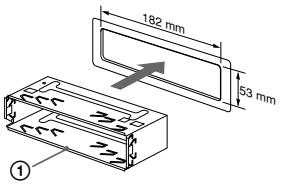
4 A



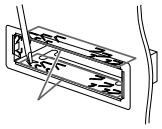
B



5 1



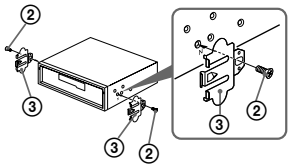
2



Bend these claws outward for a tight fit, if necessary.

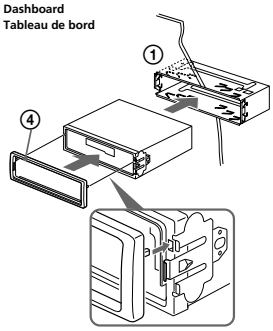
Plier ces griffes pour assurer une prise correcte si nécessaire.

3

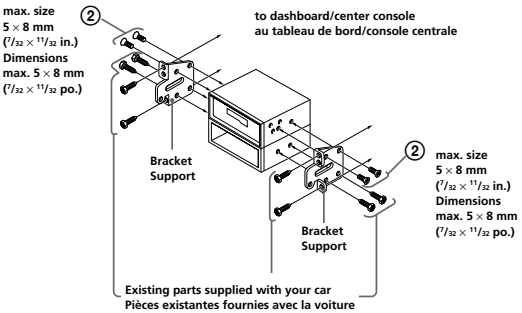


4

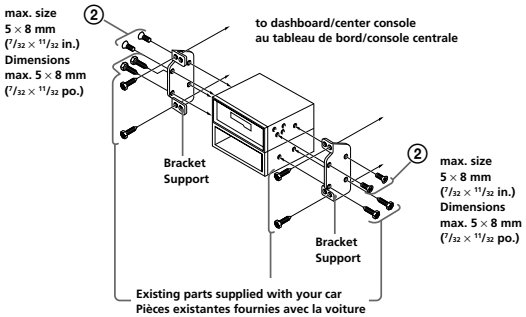
Dashboard
Tableau de bord



6 A TOYOTA



B NISSAN



Precautions

- Choose the installation location carefully so that the unit will not interfere with normal driving operations.
- Avoid installing the unit in areas subject to dust, dirt, excessive vibration, or high temperatures, such as in direct sunlight or near heater ducts.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Adjust the mounting angle to less than 20°.

How to detach and attach the front panel (4)

Before installing the unit, detach the front panel.

4-A To detach

Before detaching the front panel, be sure to press (OFF). Press (RELEASE), then slide the front panel a little to the left, and pull it off towards you.

4-B To attach

Attach part Ⓐ of the front panel to part Ⓑ of the unit as illustrated and push the left side into position until it clicks.

Mounting example (5)

Installation in the dashboard

Mounting the unit in a Japanese car (6)

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your Sony dealer.

Note

To prevent malfunction, install only with the supplied screws ②.

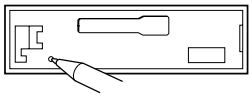
Warning when installing in a car without ACC (accessory) position on the ignition key switch

Be sure to press (OFF) on the unit for two seconds to turn off the clock display after turning off the engine.

When you press (OFF) only momentarily, the clock display does not turn off and this causes battery wear.

RESET button

When the installation and connections are completed, be sure to press the RESET button with a ball-point pen, etc.



Précautions

- Choisir soigneusement l'emplacement d'installation pour que l'appareil ne gêne pas le chauffeur pendant la conduite.
- Évitez d'installer l'appareil dans un endroit exposé à la poussière, à la saleté, à des vibrations excessives ou à des températures élevées comme en plein soleil ou à proximité de conduits de chauffage.
- Pour garantir un montage sûr, n'utilisez que le matériel d'installation fourni.

Réglage de l'angle de montage

Ajuster l'inclinaison à un angle inférieur à 20°.

Retrait et pose de la façade (4)

Avant d'installer l'appareil, déposer la façade.

4-A Pour retirer

Avant de déposer la façade, ne pas oublier d'appuyer sur (OFF). Appuyer ensuite sur (RELEASE), puis faire glisser la façade légèrement vers la gauche et enlever la façade en tirant à soi.

4-B Pour fixer

Fixez la partie Ⓐ de la façade sur la partie Ⓑ de l'appareil, comme indiqué sur l'illustration, puis poussez jusqu'au déclic.

Exemple de montage (5)

Installation dans le tableau de bord

Installation de l'appareil dans une voiture japonaise (6)

Cet appareil ne peut pas être installé dans certaines voitures japonaise. Consultez, dans ce cas, votre concessionnaire Sony.

Remarque

Pour éviter tout dysfonctionnement, utilisez uniquement les vis ② pour le montage.

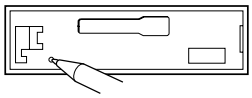
Avertissement en cas d'installation dans une voiture dont le contact ne comporte pas de position ACC (accessoires)

N'oubliez pas d'appuyer sur le bouton (OFF) de l'appareil pendant deux secondes après avoir coupé le moteur de façon à désactiver l'affichage de l'horloge.

Si vous appuyez brièvement sur (OFF), l'affichage de l'horloge n'est pas désactivé, ce qui provoque une usure de la batterie.

Touche RESET

Quand l'installation et les raccordements sont terminés, appuyez sur la touche RESET avec un stylo à bille ou un autre objet pointu.



SECTION 2
DISASSEMBLY

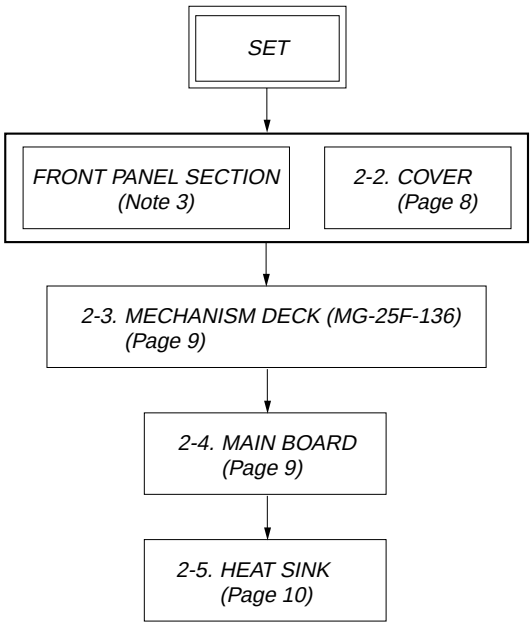
• This set can be disassembled in the order shown below.

2-1. DISASSEMBLY FLOW

Note 1: *The process described in* ⊟ *can be performed in any order.*

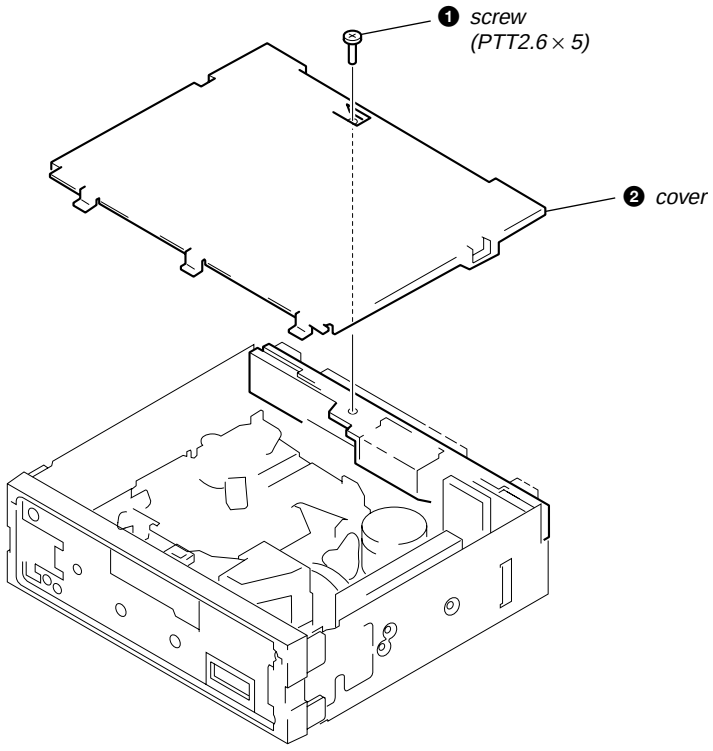
Note 2: *Without completing the process described in* ⊟ *, the next process can not be performed.*

Note 3: *Illustration of disassembly is omitted.*

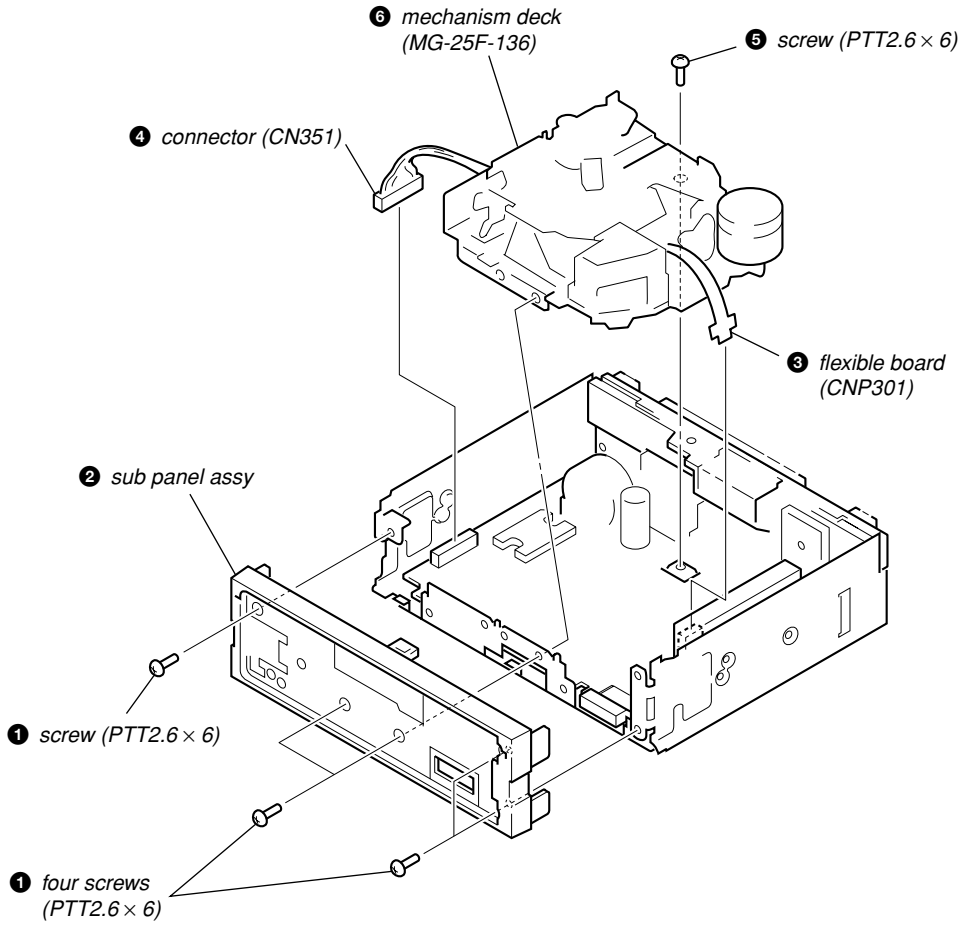


Note: Follow the disassembly procedure in the numerical order given.

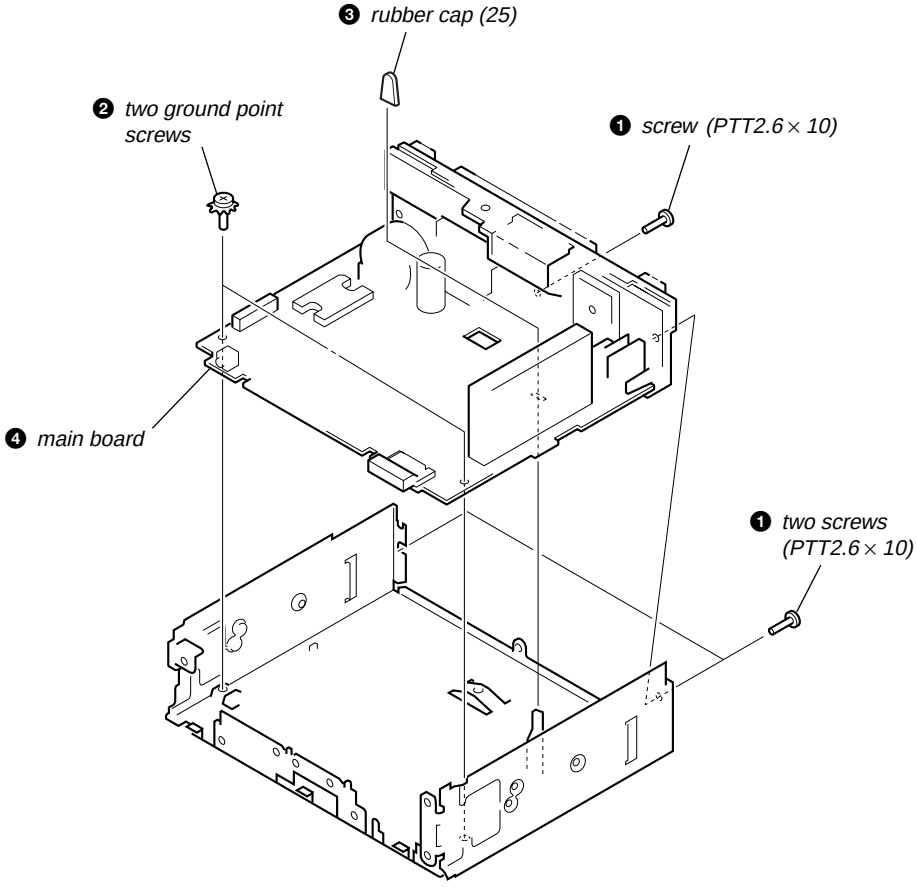
2-2. COVER



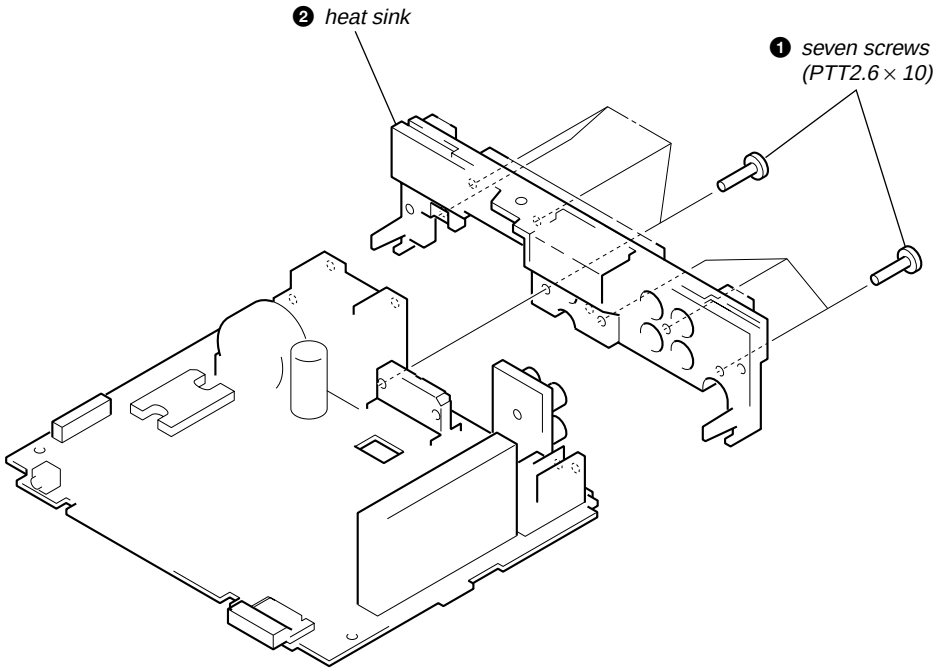
2-3. MECHANISM DECK (MG-25F-136)


❻ mechanism deck (MG-25F-136)
❺ screw (PTT2.6 × 6)
❹ connector (CN351)
❸ flexible board (CNP301)
❷ sub panel assy
❶ screw (PTT2.6 × 6)
❶ four screws (PTT2.6 × 6)

2-4. MAIN BOARD



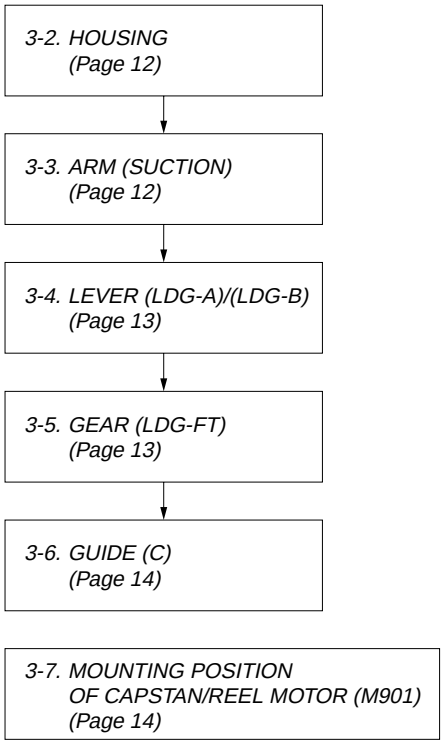
2-5. HEAT SINK



SECTION 3
ASSEMBLY OF MECHANISM DECK

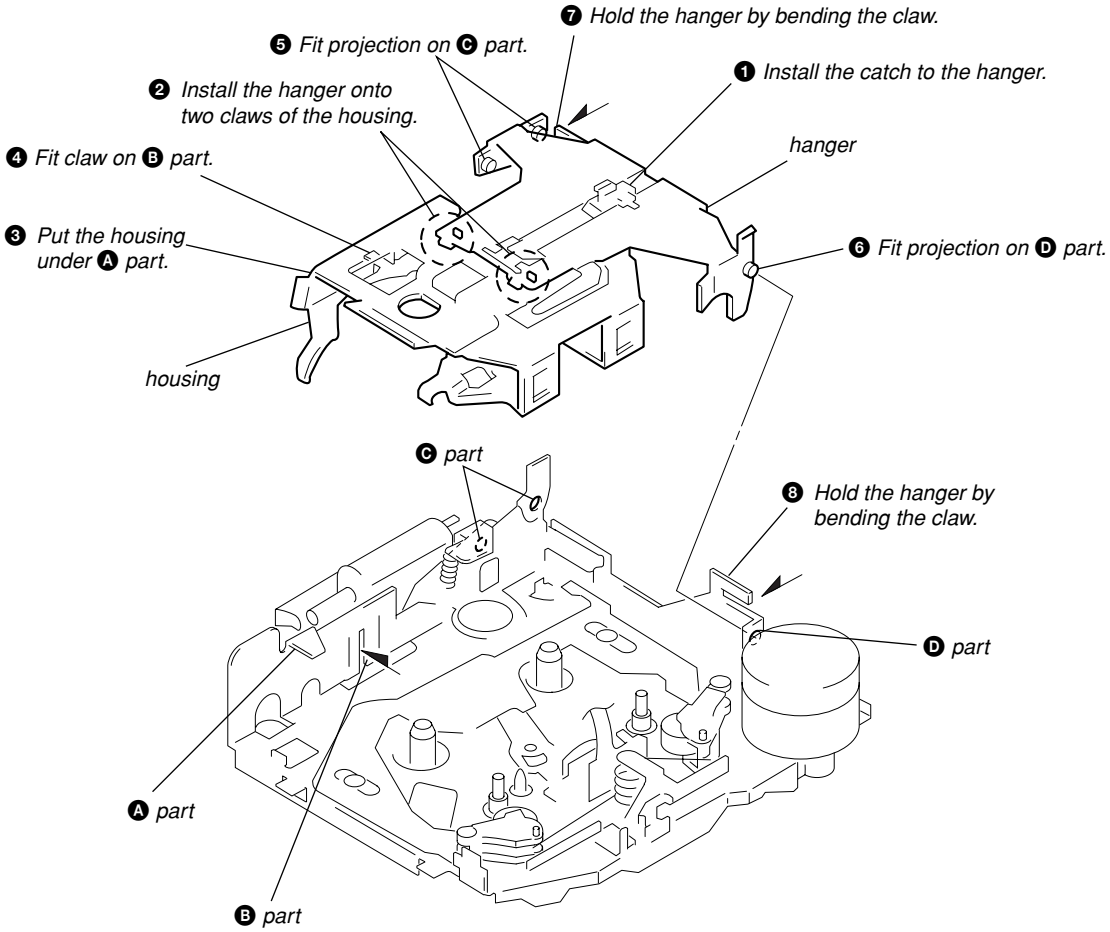
• This set can be assembled in the order shown below.

3-1. ASSEMBLY FLOW

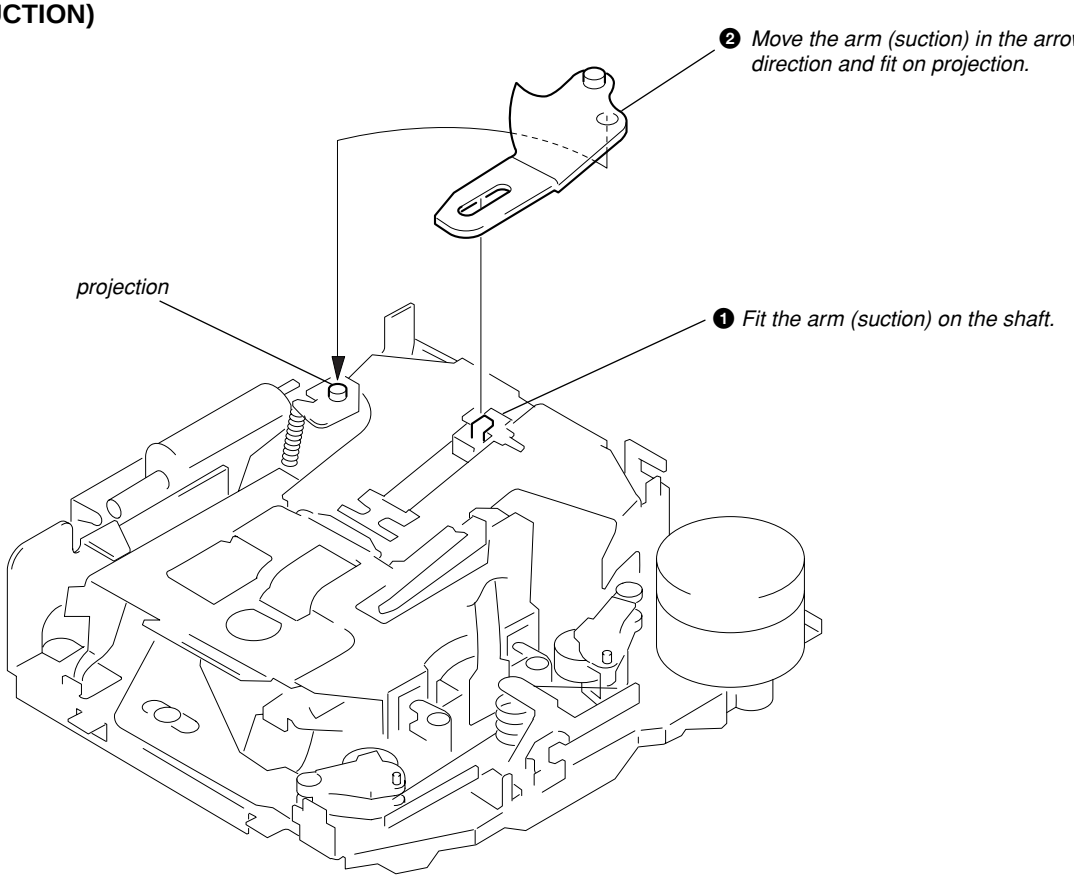


Note: Follow the assembly procedure in the numerical order given.

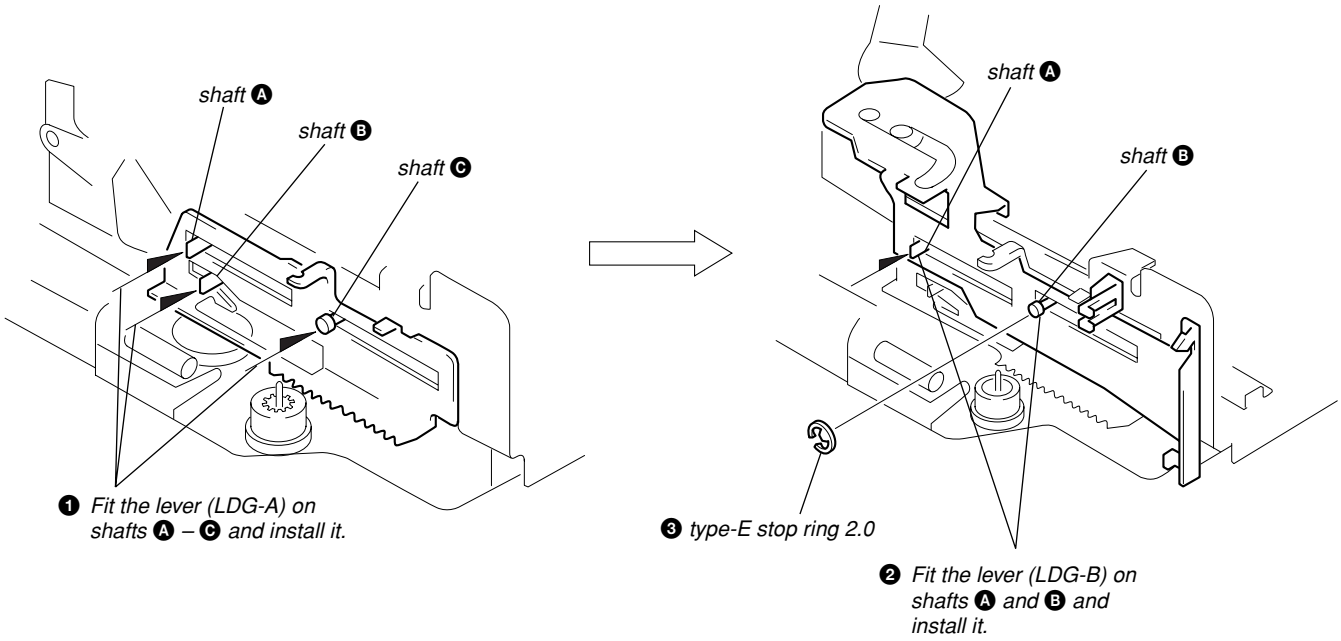
3-2. HOUSING


❼ Hold the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catch to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

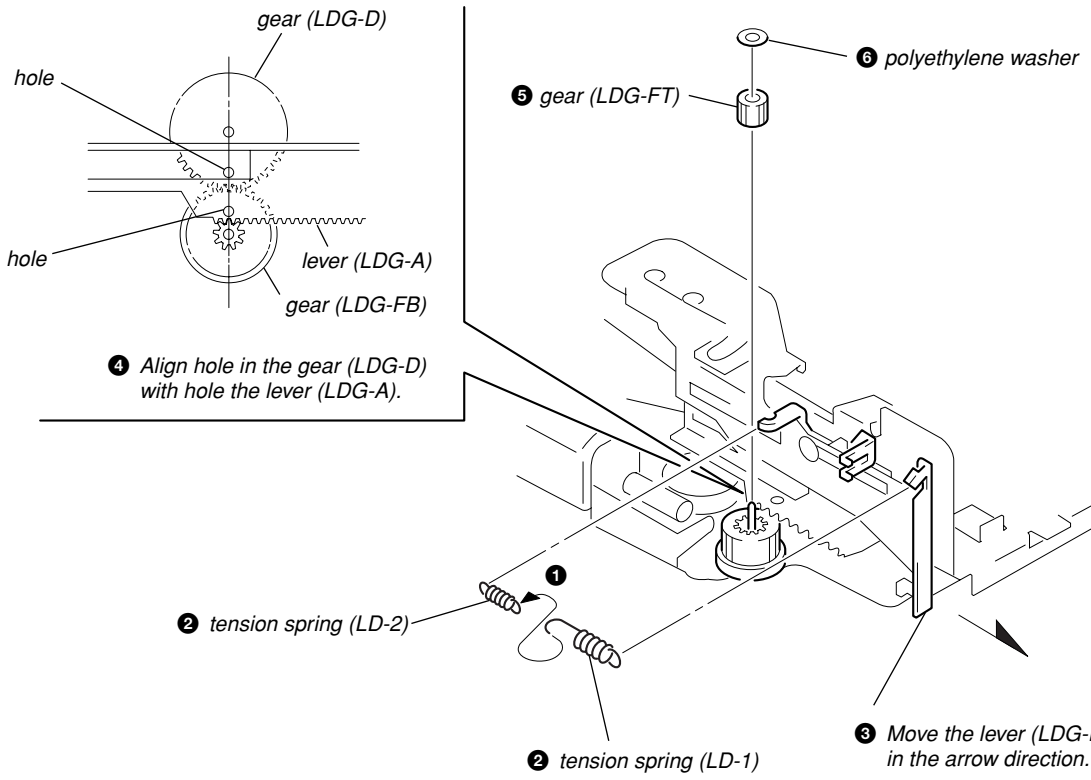
3-3. ARM (SUCTION)



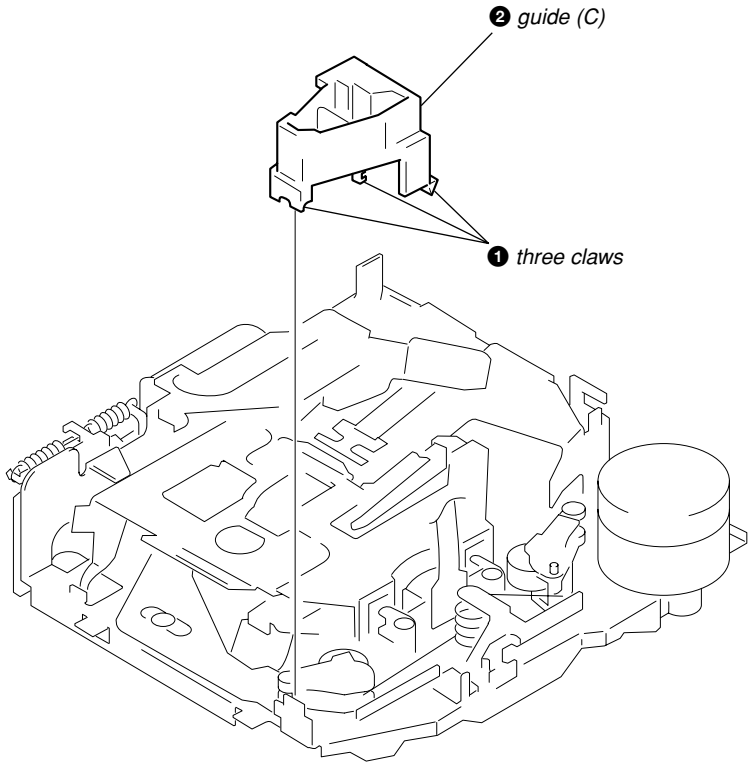
3-4. LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

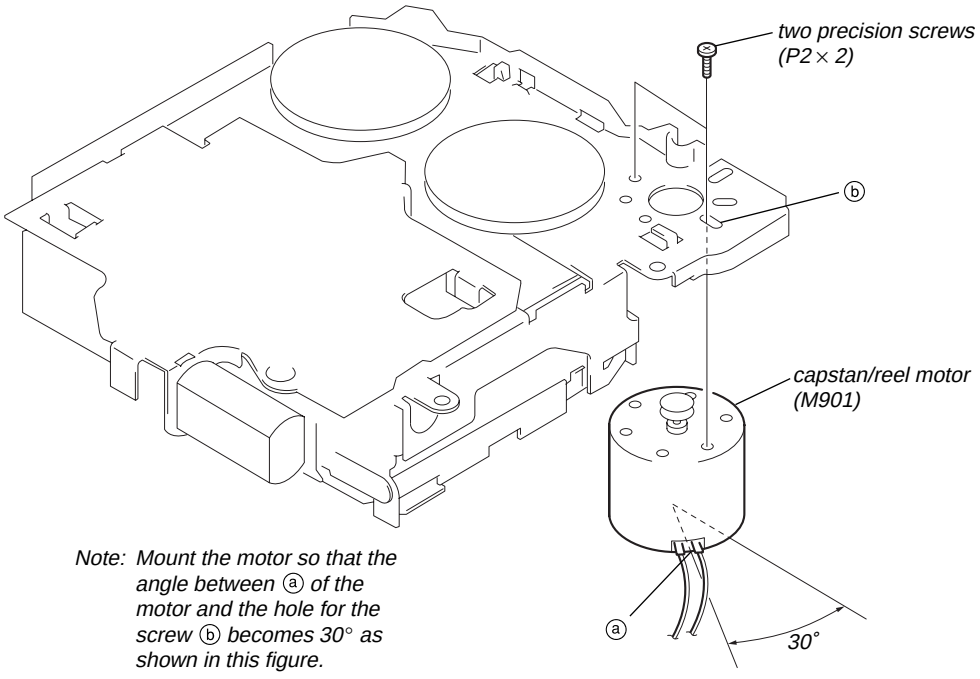
3-5. GEAR (LDG-FT)



3-6. GUIDE (C)



3-7. MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



Note: Mount the motor so that the angle between ⓐ of the motor and the hole for the screw ⓑ becomes 30° as shown in this figure.

SECTION 4
MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head pinch roller
   rubber belt capstan
   idler
2. Demagnetize the playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. The adjustments should be performed with the power supply voltage (14.4 V) unless otherwise noted.

TORQUE MEASUREMENT

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Forward Back Tension	CQ-102C	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
Reverse	CQ-102RC	2.95 – 6.37 mN•m (30 – 65 g•cm) (0.42 – 0.90 oz•inch)
Reverse Back Tension	CQ-102RC	0.05 – 0.44 mN•m (0.5 – 4.5g•cm) (0.01 – 0.06 oz•inch)
FF, REW	CQ-201B	5.89 – 19.61 mN•m (60 – 200 g•cm) (0.83 – 2.78 oz•inch)

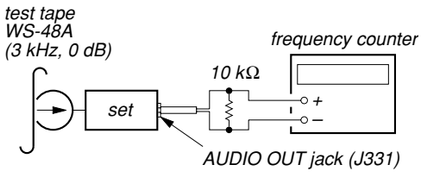
TAPE TENSION MEASUREMENT

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 60 g (more than 2.12 oz)
Reverse	CQ-403R	more than 60 g (more than 2.12 oz)

SECTION 5
ELECTRICAL ADJUSTMENTS

TAPE DECK SECTION 0 dB=0.775 V

Tape Speed Adjustment
Setting:



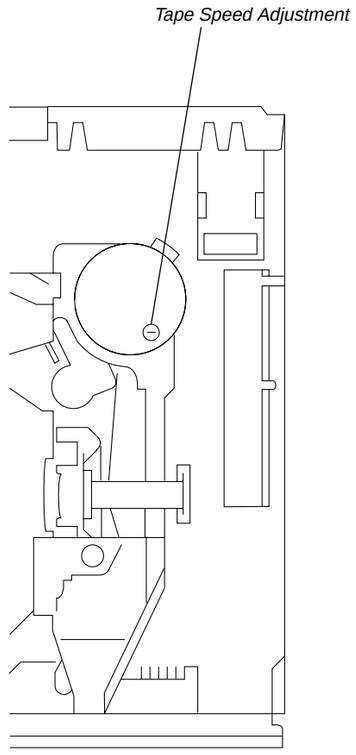
Procedure:
1. Put the set into the FWD PB mode.
2. Adjust adjustment resistor for inside capstan motor so that the reading on the frequency counter becomes 3,000 Hz.

Specified Value: Constant speed

Frequency counter
2,955 to 3,075 Hz

Adjustment Location:

– SET UPPER VIEW –



TUNER SECTION

Tuner section adjustments are done automatically in this set.

SECTION 6
DIAGRAMS

6-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

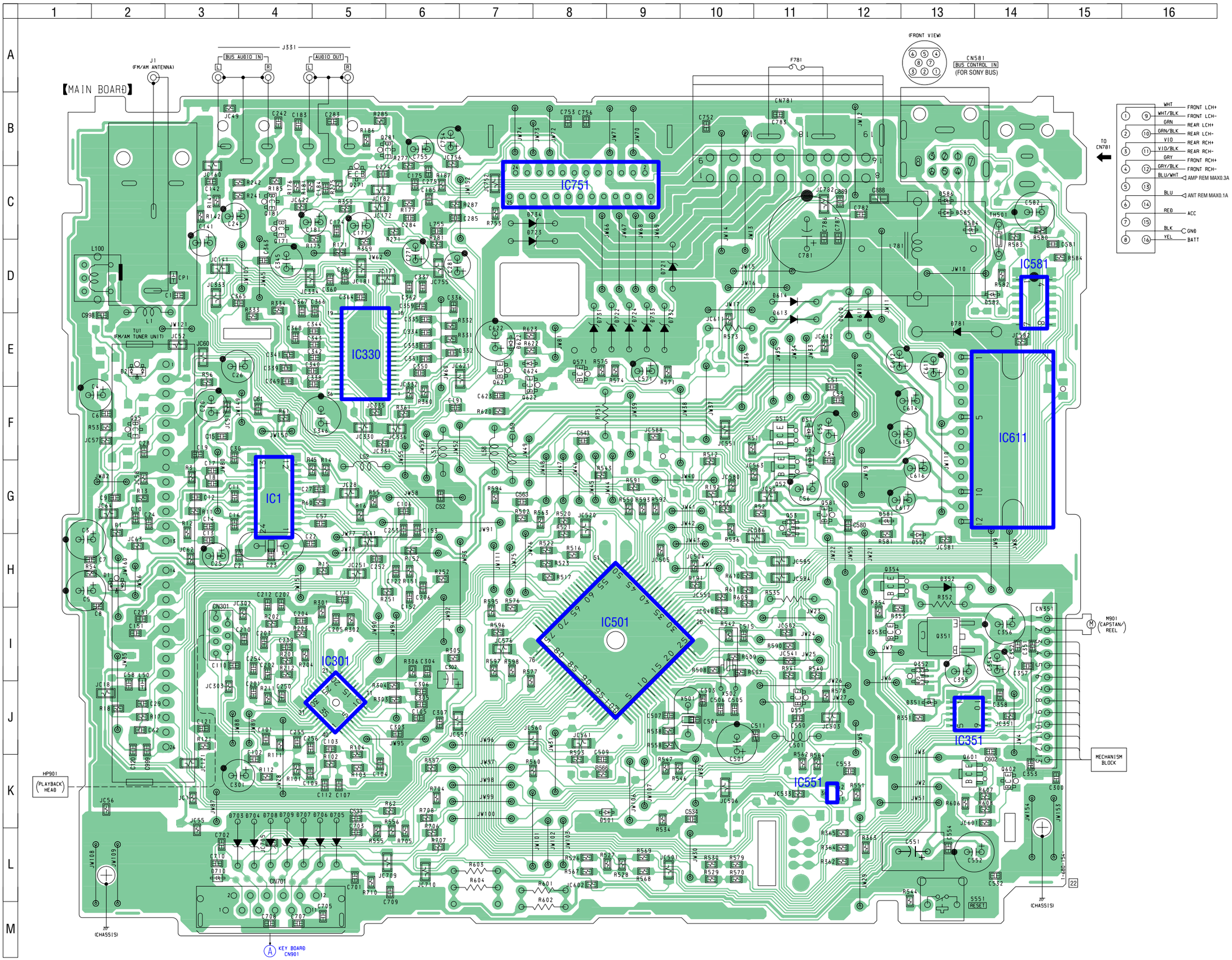
Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  ⟨⟨ ⟩⟩ : TAPE PLAYBACK
  ＊ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  Σ : TAPE PLAYBACK
  ⇨ : BUS AUDIO IN

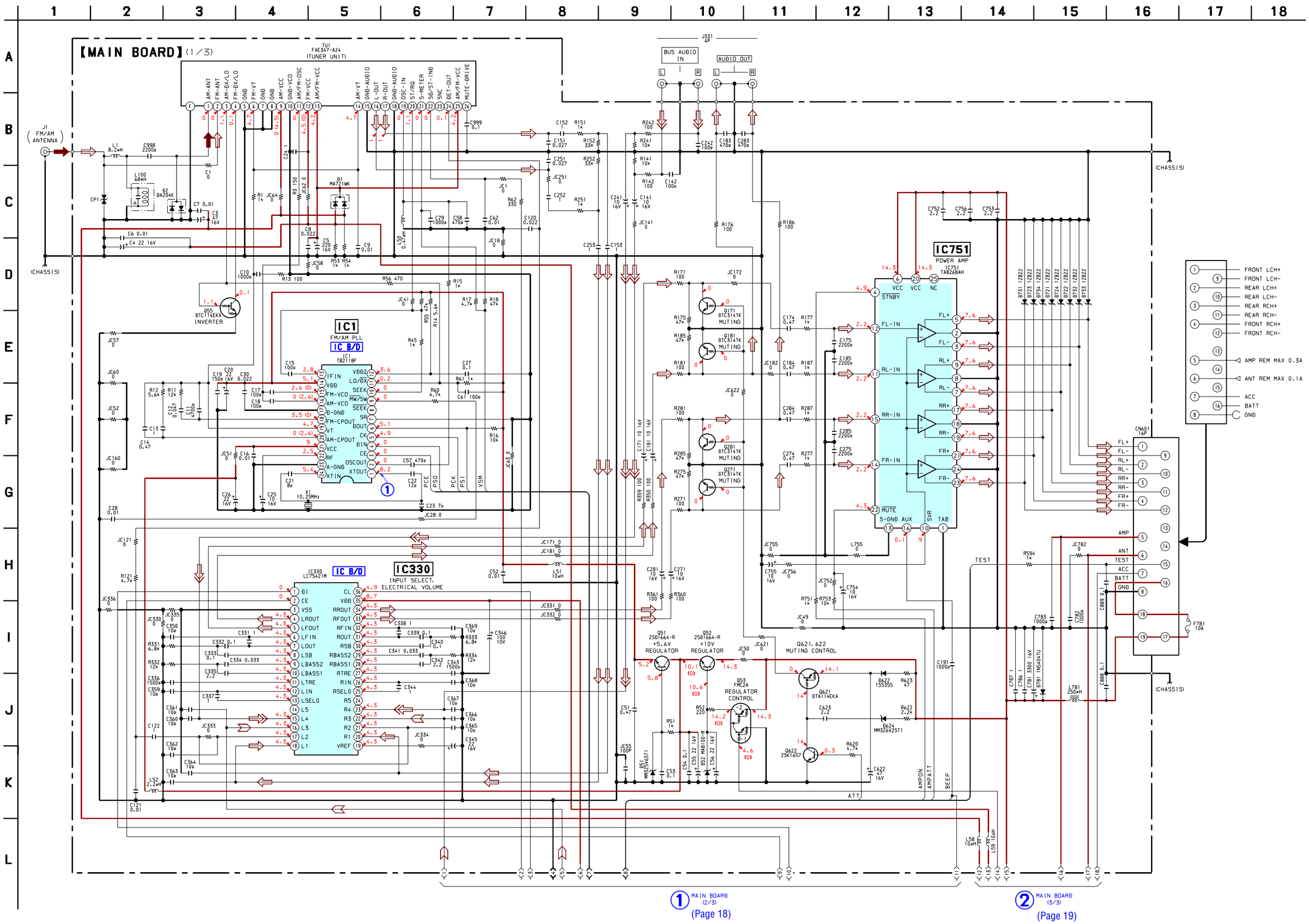
6-2. PRINTED WIRING BOARD – MAIN Board –

- **Semiconductor Location**

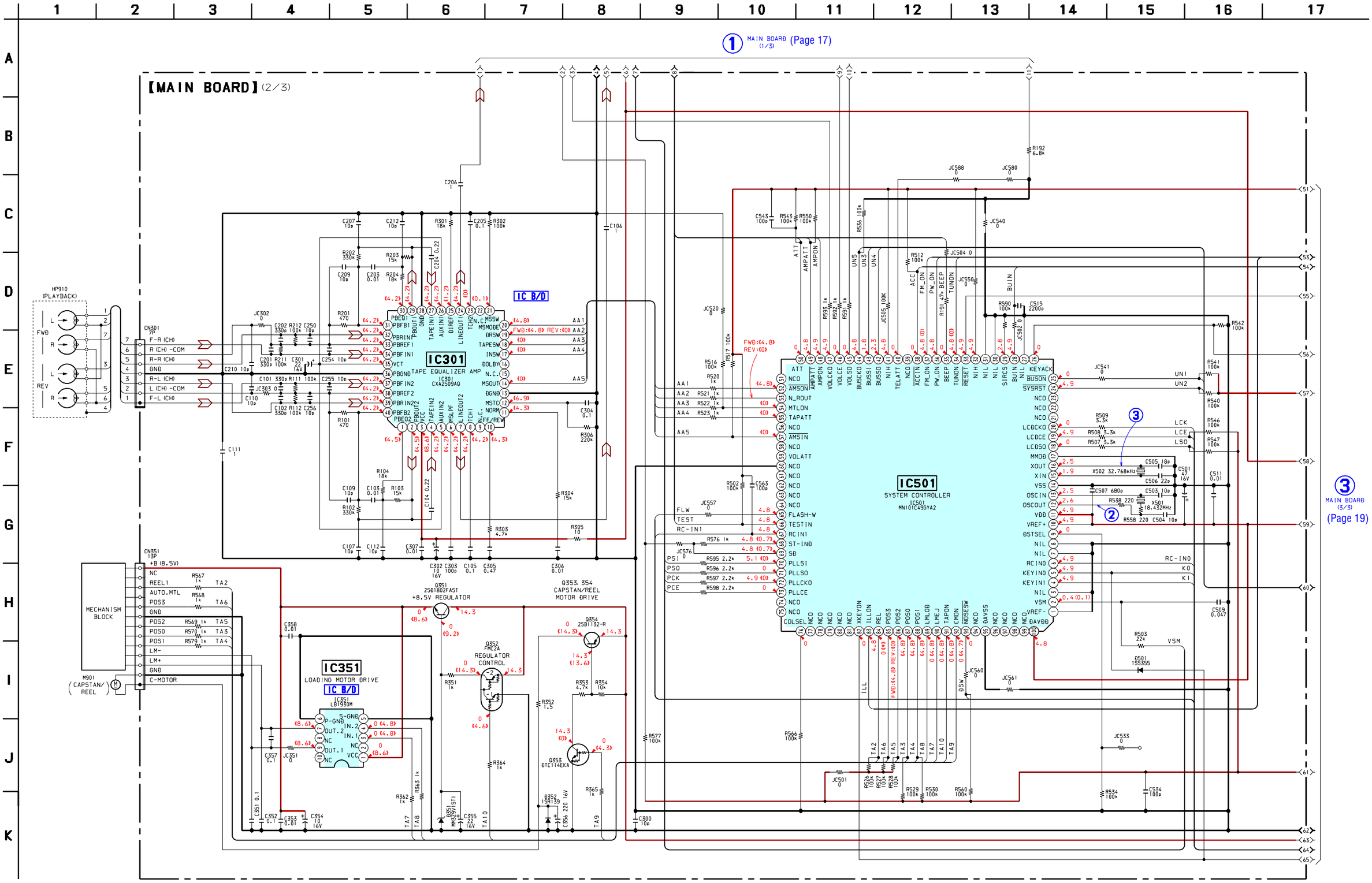
Ref. No.	Location
D1	H-2
D2	E-2
D51	F-11
D52	G-11
D351	J-13
D352	H-13
D501	K-9
D552	H-13
D581	G-12
D582	D-14
D584	C-13
D585	C-13
D586	C-13
D610	E-12
D611	E-12
D613	E-11
D614	D-11
D622	E-7
D624	E-7
D703	L-3
D704	L-4
D705	L-5
D706	L-5
D707	L-4
D708	L-4
D709	L-4
D710	L-3
D721	D-9
D722	E-9
D723	D-7
D724	E-9
D731	E-8
D732	E-9
D733	E-9
D734	C-7
D781	E-13
IC1	G-4
IC301	J-5
IC330	E-5
IC351	J-13
IC501	I-9
IC551	K-12
IC581	D-14
IC611	F-14
IC751	C-8
Q51	F-11
Q52	G-11
Q53	G-11
Q55	F-2
Q171	C-4
Q181	C-4
Q271	C-5
Q281	B-6
Q351	I-13
Q352	I-13
Q353	I-12
Q354	H-12
Q551	J-11
Q571	E-7
Q581	G-11
Q601	K-13
Q602	K-14
Q621	E-7
Q622	E-7



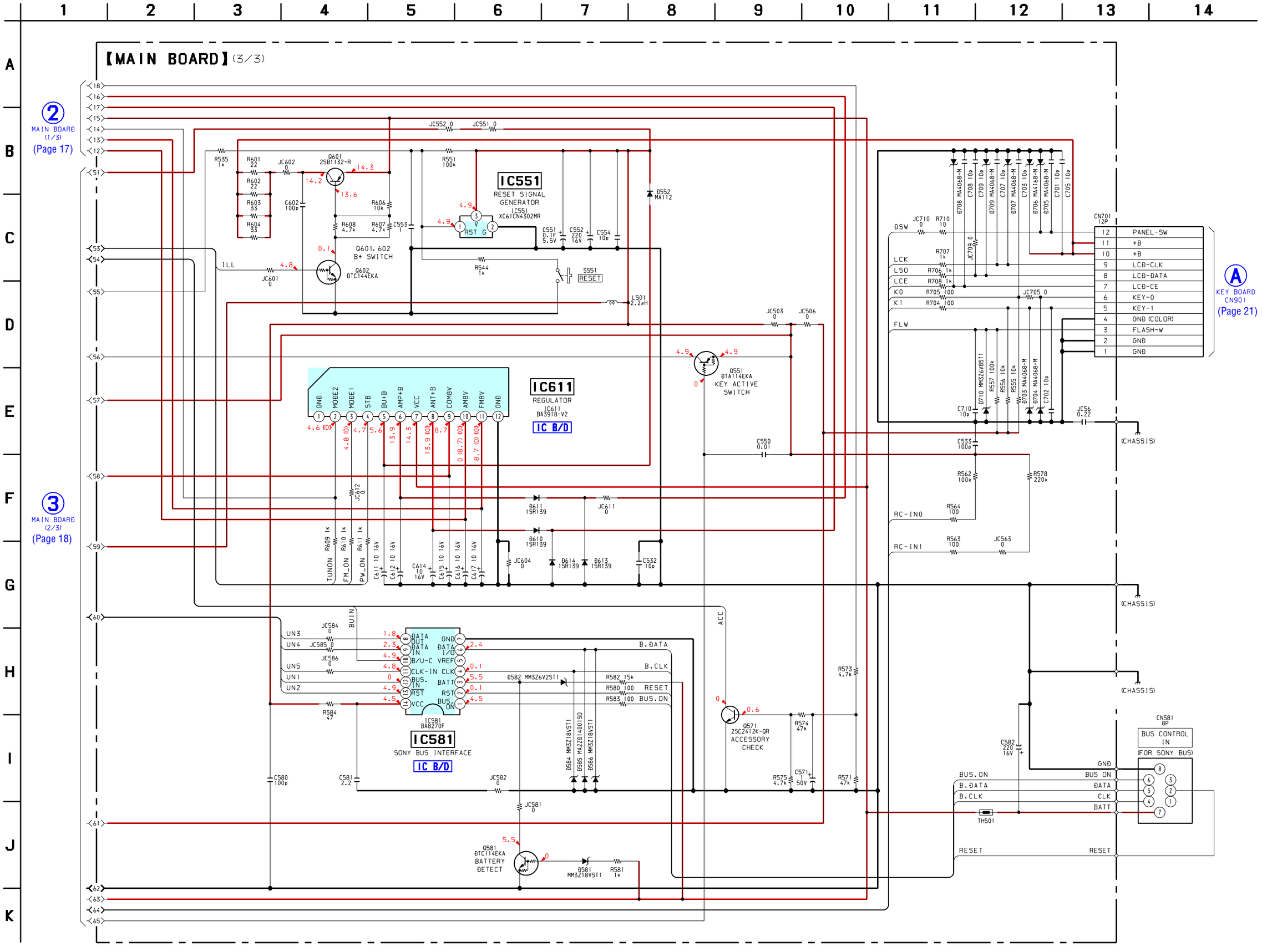
6-3. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 22 for Waveform. • See page 22 for IC Block Diagrams.



6-4. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 22 for Waveforms. • See page 22 for IC Block Diagrams.

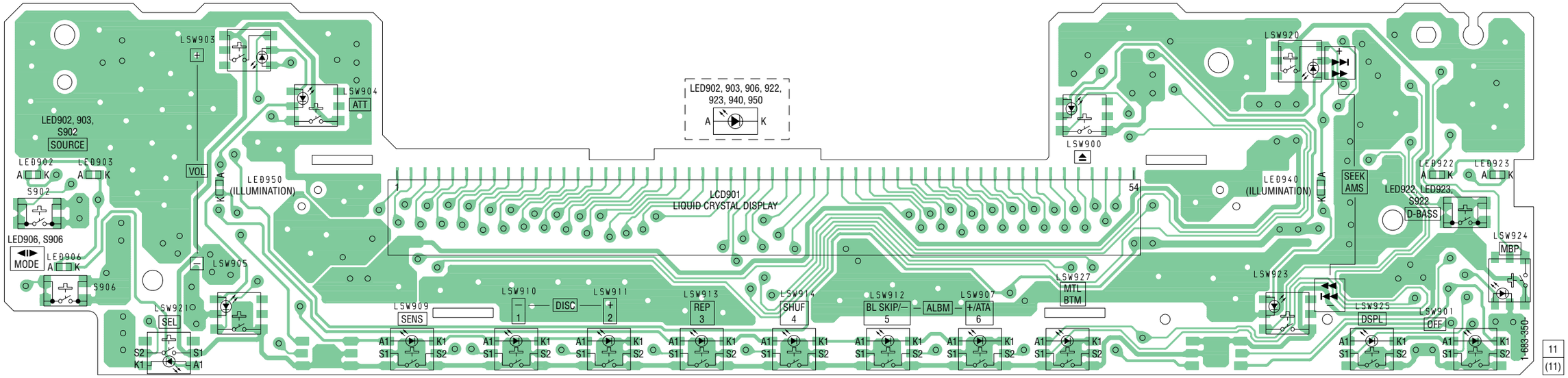


6-5. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 22 for IC Block Diagrams.



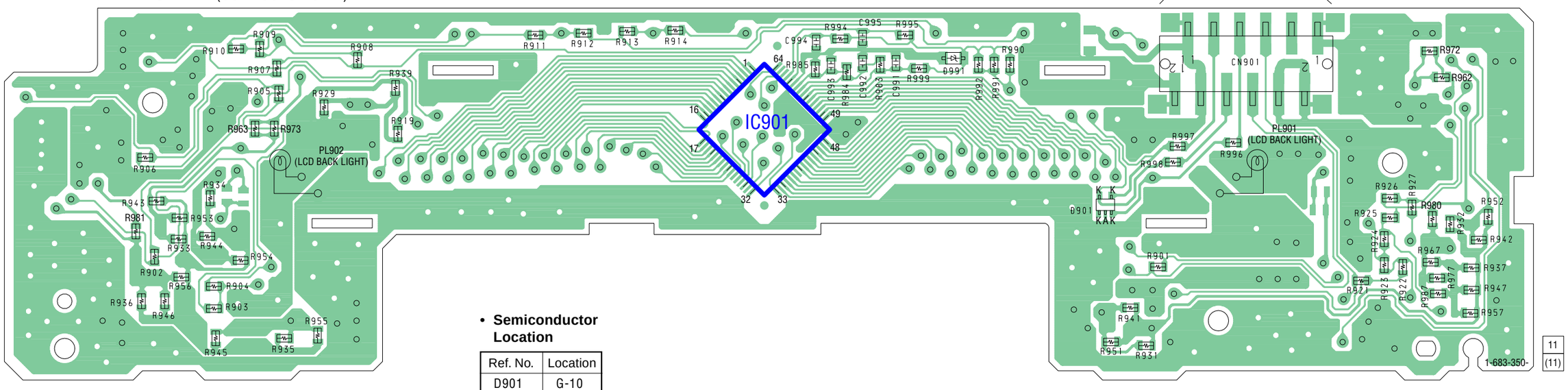
6-6. PRINTED WIRING BOARD – KEY Board –

【KEY BOARD】(COMPONENT SIDE)



(Page 16)
A MAIN BOARD CN701

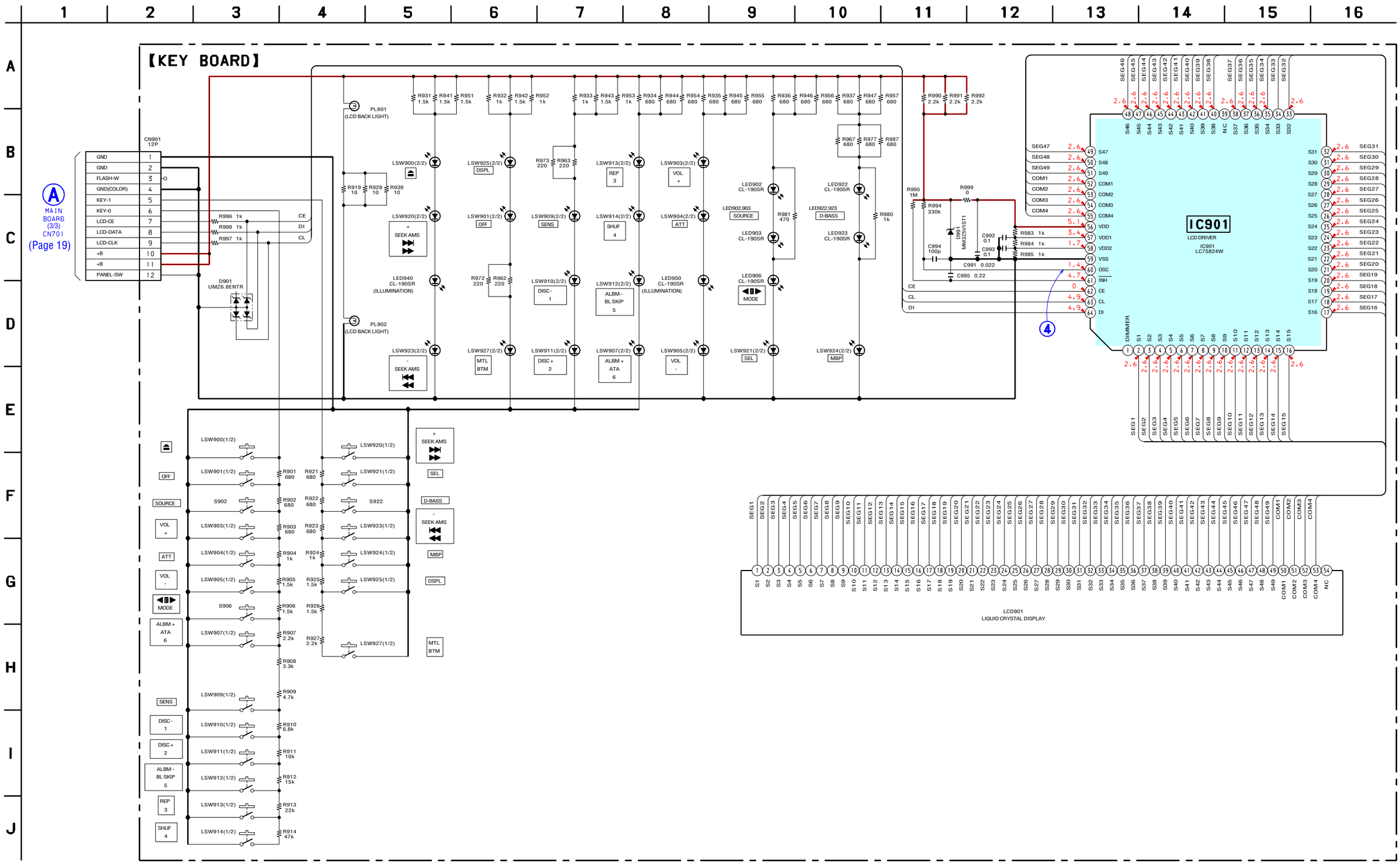
【KEY BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

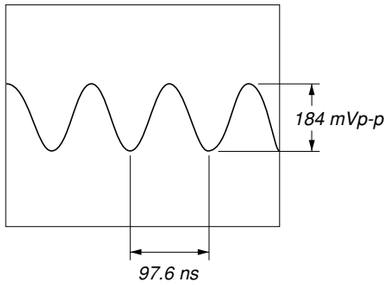
Ref. No.	Location
D901	G-10
D991	F-9
IC901	F-7
LED902	C-1
LED903	C-2
LED906	C-1
LED922	C-13
LED923	C-14
LED940	C-12
LED950	C-3

6-7. SCHEMATIC DIAGRAM – KEY Board – • See page 22 for Waveform.

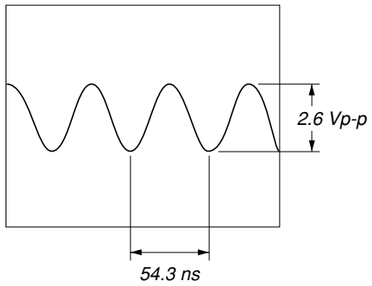


• **Waveforms**
– MAIN Board –

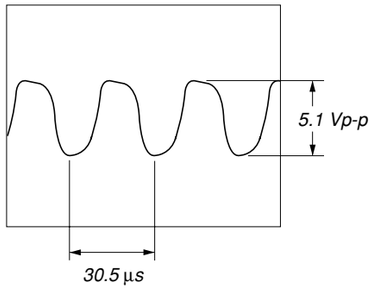
❶ IC1 ① (XTOUT)



❷ IC501 ⑫ (OSCOUT)

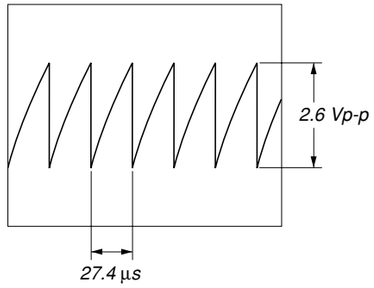


❸ IC501 ⑯ (XOUT)



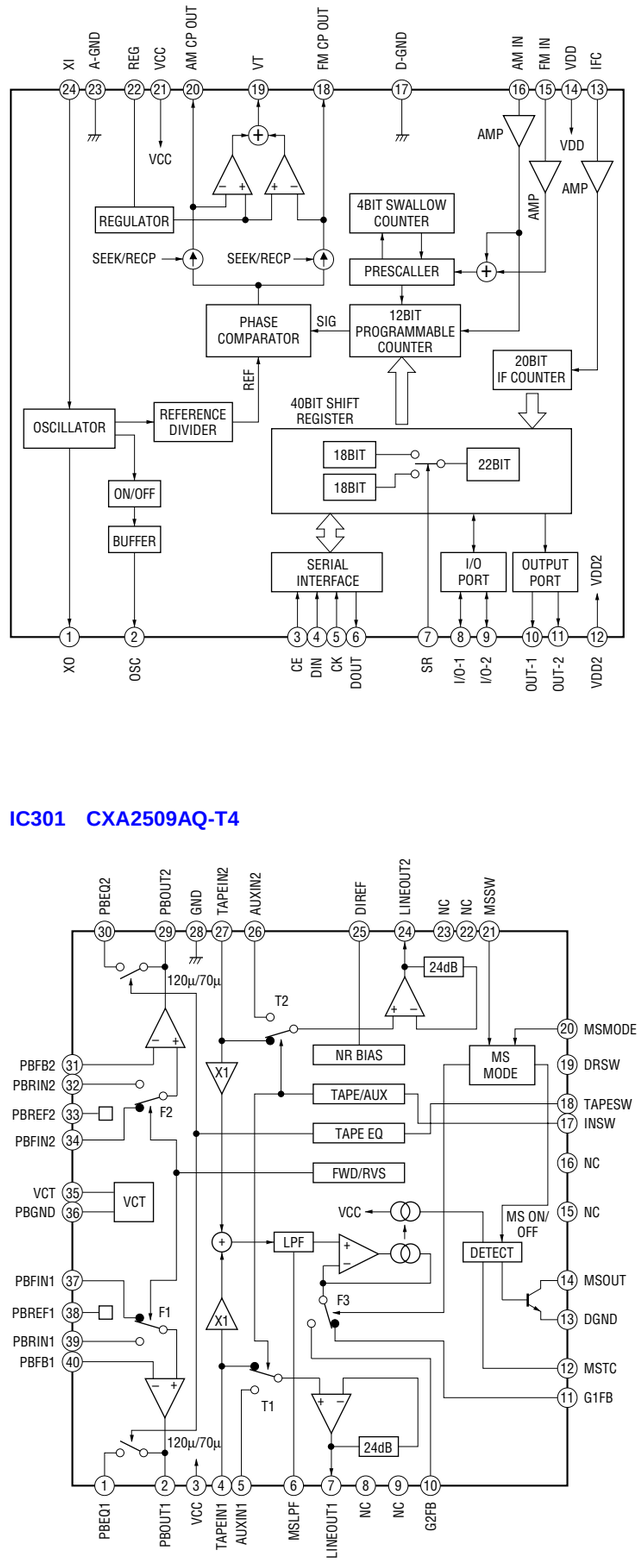
– KEY Board –

❹ IC901 ⑥⓪ (OSC)



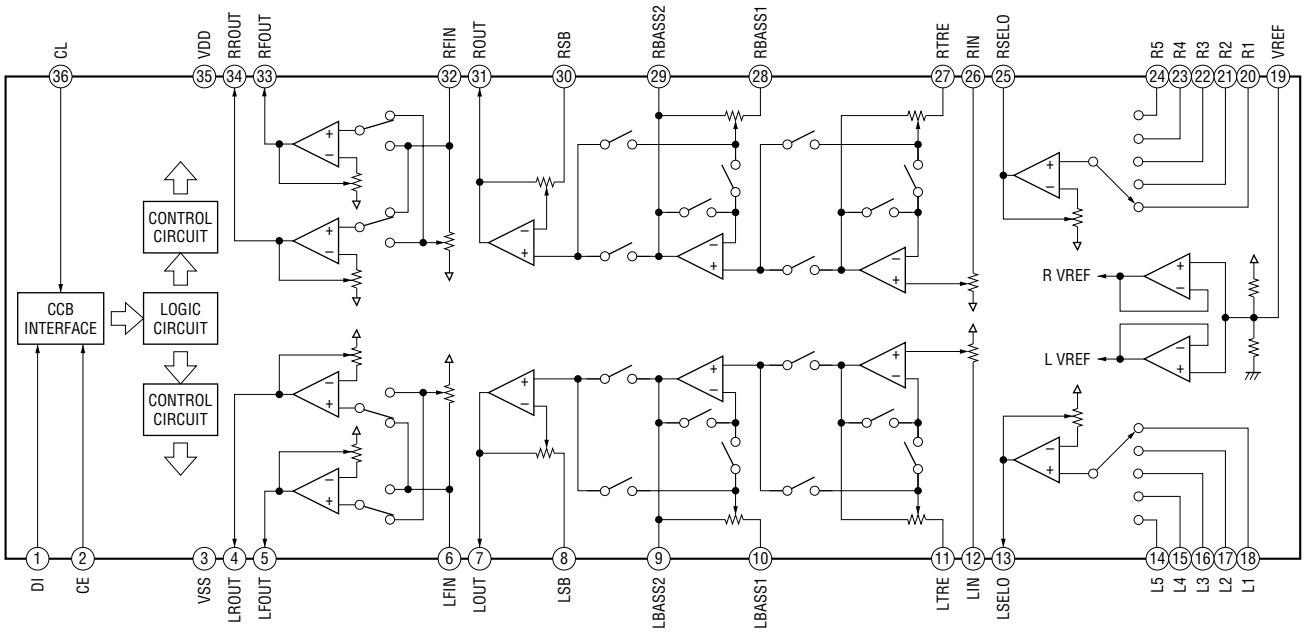
• **IC Block Diagrams**
– MAIN Board –

IC1 TB2118F-EL-S

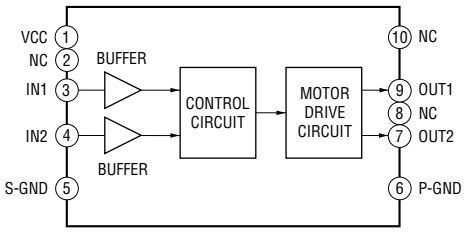


IC301 CXA2509AQ-T4

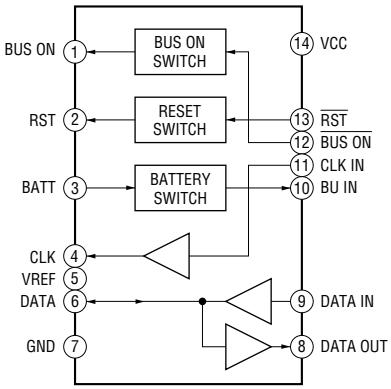
IC330 LC75421M-TLM



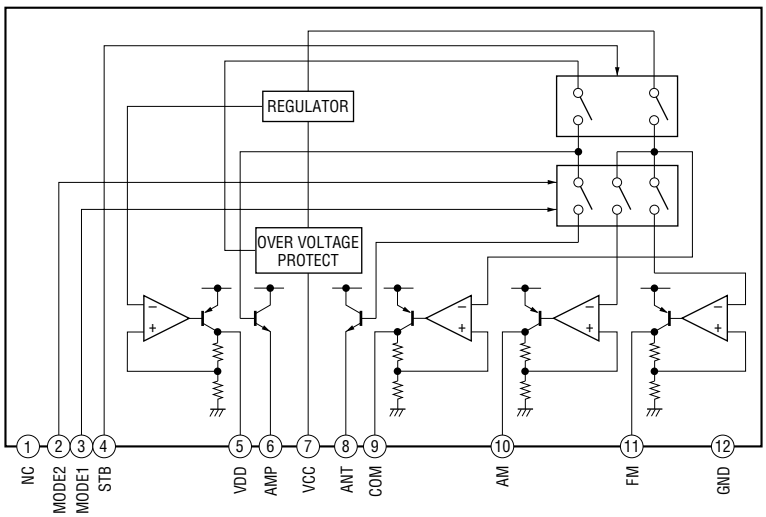
IC351 LB1930M-TLM



IC581 BA8270F-E2



IC611 BA3918-V2



6-8. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 MN101C49GYA2 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	VREF–	I	Reference voltage (0V) input terminal (for A/D converter)
2	VSM	I	FM and AM signal meter voltage detection signal input from the FM/AM tuner unit (A/D input)
3	NIL	I	Not used
4	KEYIN1	I	Key input terminal (A/D input)
5	KEYIN0	I	Key input terminal (A/D input)
6	RCIN0	I	Rotary remote commander key input terminal (A/D input)
7, 8	NIL	I	Not used
9	DSTSEL	I	Destination setting terminal (A/D input) (fixed at "L" in this set)
10	VREF+	I	Reference voltage (+5V) input terminal (for A/D converter)
11	VDD	—	Power supply terminal (+5V)
12	OSCOUT	O	Main system clock output terminal (18.432 MHz)
13	OSCIN	I	Main system clock input terminal (18.432 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Sub system clock input terminal (32.768 kHz)
16	XOUT	O	Sub system clock output terminal (32.768 kHz)
17	MMOD	I	Selection signal of memory mode input terminal "L": single chip mode (fixed at "L" in this set)
18	LCDSO	O	Serial data output to the liquid crystal display driver
19	LCDCE	O	Chip enable signal output to the liquid crystal display driver "H" active
20	LCDCKO	O	Serial data transfer clock signal output to the liquid crystal display driver
21 to 23	NCO	O	Not used
24	$\overline{\text{SYSRST}}$	O	Reset signal output to the SONY bus interface "L": reset
25	$\overline{\text{BUSON}}$	O	Bus on/off control signal output to the SONY bus interface "L": bus on
26	KEYACK	I	Input of acknowledge signal for the key entry Acknowledge signal is input to accept function and eject keys in the power off status On at input of "H"
27	NIL	I	Not used
28	BU-IN	I	Battery detection signal input from the SONY bus interface "L" is input at low voltage
29	SIRCS	I	SIRCS remote control signal input terminal Not used
30, 31	NIL	I	Not used
32	NIH	I	Not used
33	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator and reset switch "L": reset "L" is input for several 100 msec after power on, then it changes to "H"
34	TUNON	O	Tuner system power supply on/off control signal output "H": tuner power on
35	BEEP	O	Beep sound drive signal output to the power amplifier
36	PW_ON	O	Main system power supply on/off control signal output "H": power on
37	FM_ON	O	FM power supply on/off control signal output "H": FM power on
38	$\overline{\text{ACCIN}}$	I	Accessory detection signal input "L": accessory on
39	NCO	O	Not used
40	TELATT	I	Telephone attenuate signal input At input of "H", the signal is attenuated by –20 dB Not used
41	NIH	I	Not used
42	BUSSO	O	Serial data output to the SONY bus interface
43	BUSSI	I	Serial data input from the SONY bus interface
44	BUSCKO	O	Serial data transfer clock signal output to the SONY bus interface

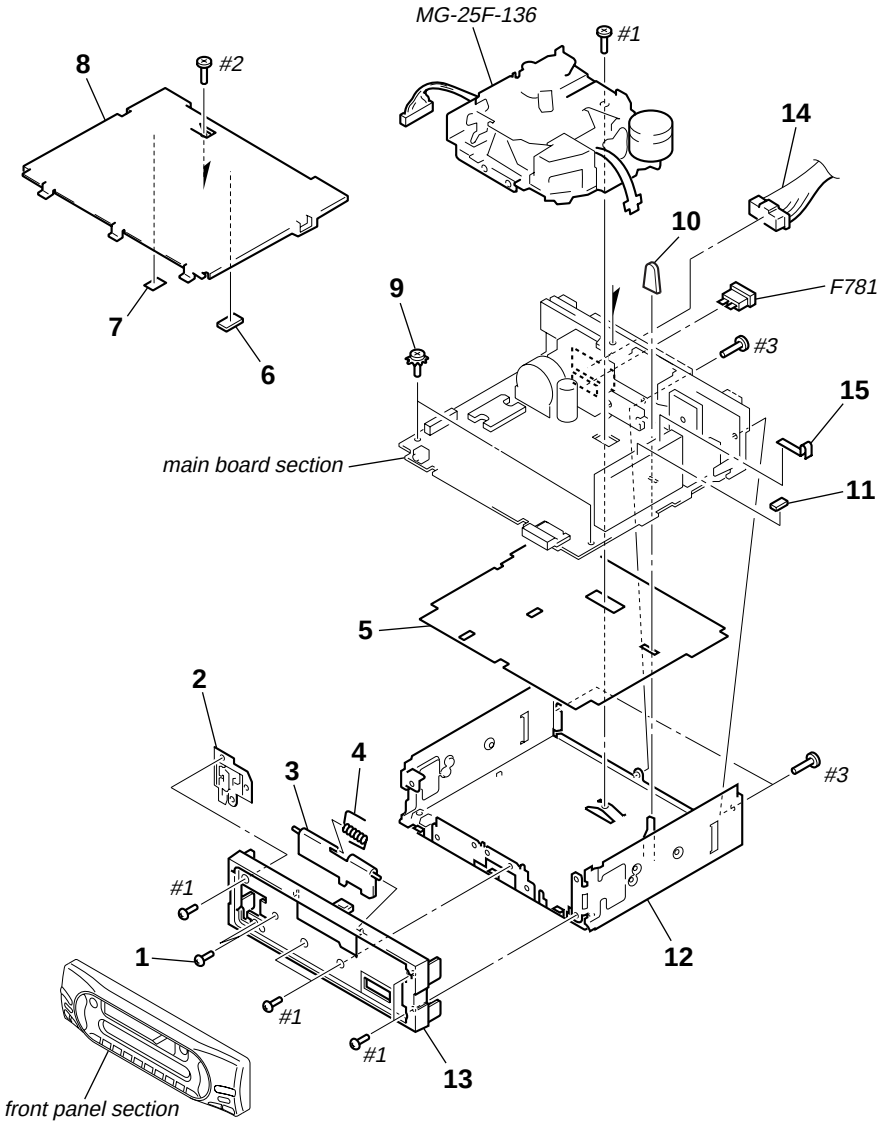
Pin No.	Pin Name	I/O	Description
45	VOLSO	O	Serial data output to the electrical volume
46	VOLCE	O	Chip enable signal output to the electrical volume "H" active
47	VOLCKO	O	Bus clock signal output to the electrical volume
48	AMPON	O	Standby on/off control signal output to the power amplifier "L": standby mode, "H": amplifier on
49	$\overline{\text{AMPATT}}$	O	Muting on/off control signal output to the power amplifier "L": muting on
50	ATT	O	Audio line muting on/off control signal output "H": muting on
51	NCO	O	Not used
52	$\overline{\text{AMSON}}$	O	Tape auto music sensor control signal output to the tape equalizer amplifier "L": auto music sensor on
53	N ROUT	O	Forward/reverse control signal output to the tape equalizer amplifier "L": reverse direction, "H": forward direction
54	MTLON	O	METAL on/off control signal output to the tape equalizer amplifier "H": METAL on
55	TAPATT	O	Tape muting on/off control signal output to the tape equalizer amplifier "H": muting on Active at ATA, FF/REW mode
56	NCO	O	Not used
57	AMSIN	I	Whether a music is present or not from tape equalizer amplifier is detected at auto music sensor "L": music is present, "H": music is not present
58	NCO	O	Not used
59	VOLATT	O	Pre amplifier muting on/off control signal output terminal Not used
60 to 64	NCO	O	Not used
65	FLASH_W	I	Internal flash memory data write mode detection signal input terminal "L": data write mode Not used
66	$\overline{\text{TESTIN}}$	I	Setting terminal for the test mode "L": test mode, normally fixed at "H"
67	RCIN1	I	Rotary remote commander shift key input terminal "L": shift key on
68	ST-IND	I/O	FM stereo broadcasting detection signal input from the FM/AM tuner unit, or forced monaural control signal output to the FM/AM tuner unit "L" is input in the FM stereo mode, or "L" is output in the forced monaural mode
69	SD	I	Station detector detection signal input from the FM/AM tuner unit Stop level for SEEK, BTM, etc. is determined SD is present at input of "H"
70	PLLSI	I	PLL serial data input from the FM/AM PLL
71	PLLSO	O	PLL serial data output to the FM/AM PLL
72	PLLCKO	O	PLL serial data transfer clock signal output to the FM/AM PLL
73	PLLCE	O	PLL chip enable signal output to the FM/AM PLL "H" active
74, 75	NCO	O	Not used
76	COLSEL	I	Setting terminal for the illumination color "L": amber, "H": green (fixed at "L" in this set)
77 to 81	NCO	O	Not used
82	XKEYON	O	A/D converter power control signal output terminal When the KEYACK (pin 26) that controls reference voltage power for key A/D conversion input is active, "L" is output from this terminal to enable the input
83	ILLON	O	Power on/off control signal output of the illumination LED and liquid crystal display driver "H": power on
84	REL	I	Rotation detection signal input from supply reel sensor and take-up reel sensor on the mechanism deck
85	POS3	I	Tape position (EJECT/FF/REW/REV/ FWD mode) detect input from the tape operation switch on the deck mechanism POS3: "L": REV and EJECT mode, "H": others mode POS2: "L": REW mode, "H": others mode POS0: "L": EJECT mode, "H": others mode POS1: "L": FF and FWD mode, "H": others mode
86	POS2	I	
87	POS0	I	
88	POS1	I	

Pin No.	Pin Name	I/O	Description
89	LMLOD	O	Motor drive signal output to the loading motor drive "H" active (For the loading direction and forward side operation)
90	LMEJ	O	Motor drive signal output to the loading motor drive "H" active (For the eject direction and reverse side operation)
91	TAPEON	O	Power on/off control signal output of the loading motor drive and capstan/reel motor "H": motor on
92	CMON	O	Capstan/reel motor drive signal output terminal "H": motor on
93	$\overline{\text{NOSESW}}$	I	Front panel block remove/attach detection signal input "L": front panel is attached, "H": front panel is removed
94	NCO	O	Not used
95	DAVSS	—	Ground terminal (for D/A converter)
96 to 99	NCO	O	Not used
100	DAVCC	—	Power supply terminal (+5V) (for D/A converter)

SECTION 7
EXPLODED VIEWS

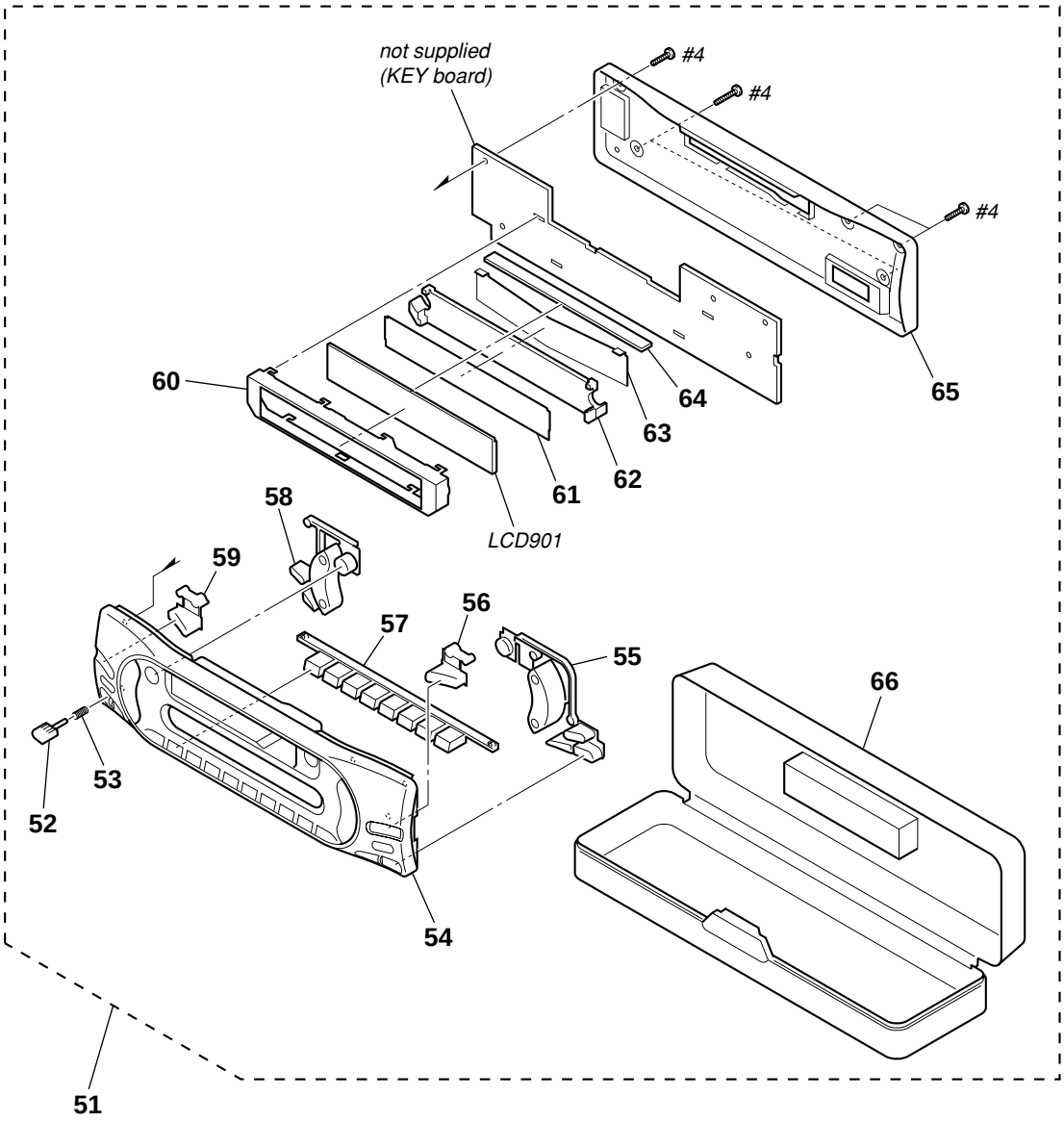
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

7-1. CHASSIS SECTION



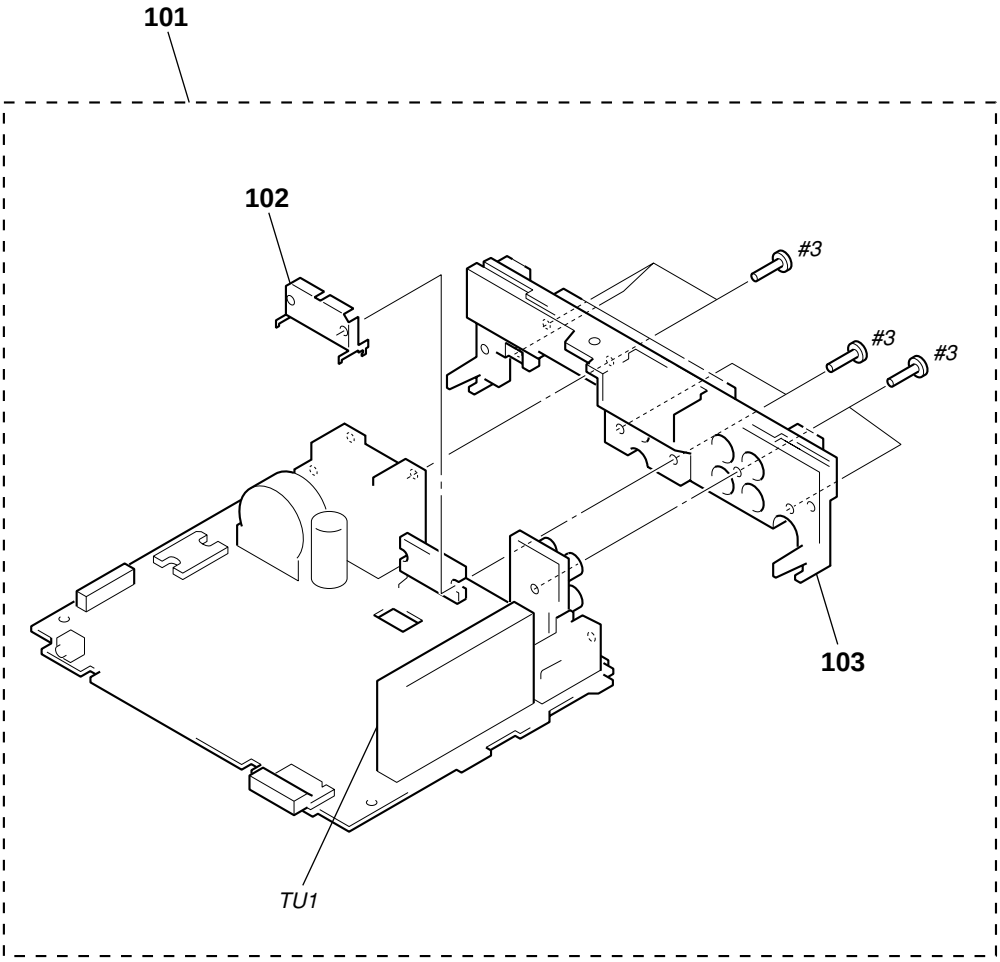
Ref. No.	Part No.	Description	Remark
1	3-042-244-11	SCREW (T)	
2	X-3370-437-3	LOCK ASSY	
3	3-027-437-51	DOOR, CASSETTE	
4	3-935-003-01	SPRING, TORSION	
* 5	3-033-846-02	INSULATED PLATE	
* 6	3-046-991-01	SPACER (COVER R)	
* 7	3-046-990-01	SPACER (COVER L)	
8	3-040-995-21	COVER	
9	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
10	3-012-859-21	CAP (25), RUBBER	
11	3-935-014-01	CUSHION (U)	
12	3-009-813-61	CHASSIS	
13	3-224-862-04	PANEL, SUB	
14	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	
15	3-937-650-01	PLATE (C), GROUND	
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A/32V)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-791-09	SCREW +PTT 2.6X5 (S)	
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-3337-064-A	PANEL COMPLETE ASSY, FRONT	
52	3-236-597-01	BUTTON (RELEASE)	
53	3-231-816-01	SPRING (RELEASE)	
54	3-236-594-01	PANEL, FRONT	
55	3-236-591-01	BUTTON (R) (⏏. + ▶▶I ▶▶ SEEK AMS I◀◀ ◀◀ –. MBP. DSPL. OFF)	
56	3-236-593-01	BUTTON (D-BASS)	
57	3-236-589-11	BUTTON (PRESET)(SENS. 1. 2. 3. 4. 5. 6.BTM)	
58	3-236-590-01	BUTTON (L) (ATT. + VOL –. MODE. SEL)	
59	3-236-592-01	BUTTON (SOURCE)	
60	3-236-596-01	PLATE (LCD), GROUND	
61	3-236-598-21	ILLUMINATOR (LCD)	
62	3-236-595-01	PLATE (LCD), LIGHT GUIDE	
63	3-236-599-01	SHEET (REFLECTOR)	
64	1-694-883-11	CONDUCTIVE BOARD, CONNECTION	
65	3-236-588-01	PANEL, FRONT BACK	
66	X-3378-490-2	CASE (PANEL) ASSY	
LCD901	1-804-622-11	DISPLAY PANEL, LIQUID CRYSTAL	
#4	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	

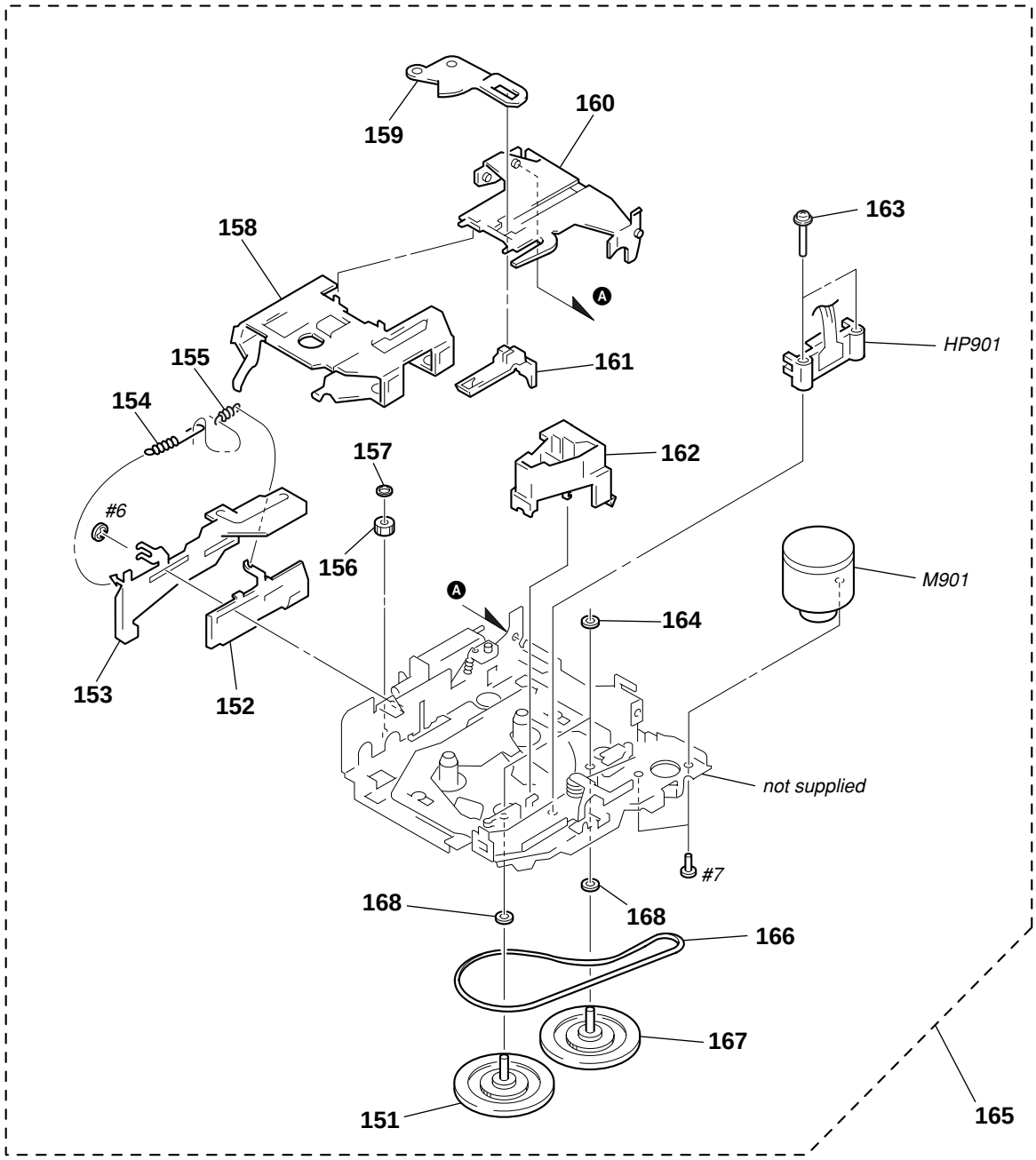
7-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	A-3340-324-A	MAIN BOARD, COMPLETE	
* 102	3-040-998-01	BRACKET (IC)	
* 103	3-224-897-11	HEAT SINK	

Ref. No.	Part No.	Description	Remark
TU1	1-693-511-21	TUNER UNIT (FAE347-A24)	
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)	

7-4. MECHANISM DECK SECTION (MG-25F-136)



Ref. No.	Part No.	Description	Remark
151	A-3291-667-A	CLUTCH (FR) ASSY	
* 152	3-019-130-01	LEVER (LDG-A)	
* 153	3-019-131-05	LEVER (LDG-B)	
154	3-228-690-01	SPRING (LD-1), TENSION	
155	3-020-540-01	SPRING (LD-2), TENSION	
156	3-020-542-01	GEAR (LOADING FT)	
157	3-341-753-11	WASHER, POLYETHYLENE	
158	3-020-533-01	HOUSING	
* 159	3-020-532-01	ARM (SUCTION)	
160	3-020-534-01	HANGER	
161	3-933-346-01	CATCHER	
162	3-933-344-22	GUIDE (C)	
163	3-927-100-21	SCREW (+PS 2X10), SPECIAL	
164	3-364-151-01	WASHER	
165	A-3220-610-A	MECHANISM DECK ASSY	
166	3-017-302-01	BELT (25)	
167	3-026-636-01	FLYWHEEL (F)	
168	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
#6	7-624-104-04	STOP RING 2.0 TYPE-E	
#7	7-627-553-17	PRECISION SCREW +P 2X2 TYPE3	

SECTION 8
ELECTRICAL PARTS LIST

KEY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark
		KEY BOARD				
		**********				
	1-694-883-11	CONDUCTIVE BOARD, CONNECTION				
	3-236-595-01	PLATE (LCD), LIGHT GUIDE				
	3-236-596-01	PLATE (LCD), GROUND				
	3-236-598-21	SHEET (ILLUMINATOR)				
	3-236-599-01	SHEET (REFLECTOR)				
		< CAPACITOR >				
C991	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
C992	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C993	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C994	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C995	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	
		< CONNECTOR >				
CN901	1-794-312-11	PIN, CONNECTOR 12P				
		< DIODE >				
D901	8-719-085-72	DIODE UMZ6.8ENTR				
D991	6-500-022-01	DIODE MM3Z5V1ST1				
		< IC >				
IC901	8-759-365-90	IC LC75824W				
		< LIQUID CRYSTAL DISPLAY >				
LCD901	1-804-622-11	DISPLAY PANEL, LIQUID CRYSTAL				
		< LED >				
LED902	8-719-061-16	LED CL-190SR-CD-T (SOURCE)				
LED903	8-719-061-16	LED CL-190SR-CD-T (SOURCE)				
LED906	8-719-061-16	LED CL-190SR-CD-T (MODE, ◀I▶)				
LED922	8-719-061-16	LED CL-190SR-CD-T (D-BASS)				
LED923	8-719-061-16	LED CL-190SR-CD-T (D-BASS)				
LED940	8-719-061-16	LED CL-190SR-CD-T (ILLUMINATION)				
LED950	8-719-061-16	LED CL-190SR-CD-T (ILLUMINATION)				
		< SWITCH >				
LSW900	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (⏏)				
LSW901	1-771-883-11	SWITCH, TACTILE (WITH LED) (OFF)				
LSW903	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (VOL +)				
LSW904	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (ATT)				
LSW905	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (VOL –)				
LSW907	1-771-883-11	SWITCH, TACTILE (WITH LED) (6, ATA, ALBM +)				
LSW909	1-771-883-11	SWITCH, TACTILE (WITH LED) (SENS)				
LSW910	1-771-883-11	SWITCH, TACTILE (WITH LED) (1, DISC –)				
LSW911	1-771-883-11	SWITCH, TACTILE (WITH LED) (2, DISC +)				
LSW912	1-771-883-11	SWITCH, TACTILE (WITH LED) (5, BL SKIP, ALBM –)				
LSW913	1-771-883-11	SWITCH, TACTILE (WITH LED) (3, REP)				
LSW914	1-771-883-11	SWITCH, TACTILE (WITH LED) (4, SHUF)				
LSW920	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SEEK AMS ▶▶ ▶▶I, +)				
LSW921	1-771-883-11	SWITCH, TACTILE (WITH LED) (SEL)				
LSW923	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (SEEK AMS ◀◀ I◀◀, –)				
LSW924	1-771-476-11	SWITCH, KEY BOARD (WITH LED) (MBP)				
LSW925	1-771-883-11	SWITCH, TACTILE (WITH LED) (DSPL)				
LSW927	1-771-883-11	SWITCH, TACTILE (WITH LED) (BTM, MTL)				
		< LAMP >				
PL901	1-518-743-41	LAMP (LCD BACK LIGHT)				
PL902	1-518-743-41	LAMP (LCD BACK LIGHT)				
		< RESISTOR >				
R901	1-216-819-11	METAL CHIP	680	5%	1/10W	
R902	1-216-819-11	METAL CHIP	680	5%	1/10W	
R903	1-216-819-11	METAL CHIP	680	5%	1/10W	
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R905	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
R906	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
R907	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R908	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R909	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R910	1-218-867-11	RES-CHIP	6.8K	5%	1/10W	
R911	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R912	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R913	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R914	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R919	1-216-797-11	METAL CHIP	10	5%	1/10W	
R921	1-216-819-11	METAL CHIP	680	5%	1/10W	
R922	1-216-819-11	METAL CHIP	680	5%	1/10W	
R923	1-216-819-11	METAL CHIP	680	5%	1/10W	
R924	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R925	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	

KEY MAIN

Ref. No.	Part No.	Description			Remark
R926	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R927	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R929	1-216-797-11	METAL CHIP	10	5%	1/10W
R931	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R932	1-216-821-11	METAL CHIP	1K	5%	1/10W
R933	1-216-821-11	METAL CHIP	1K	5%	1/10W
R934	1-216-819-11	METAL CHIP	680	5%	1/10W
R935	1-216-819-11	METAL CHIP	680	5%	1/10W
R936	1-216-819-11	METAL CHIP	680	5%	1/10W
R937	1-216-819-11	METAL CHIP	680	5%	1/10W
R939	1-216-797-11	METAL CHIP	10	5%	1/10W
R941	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R942	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R943	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R944	1-216-819-11	METAL CHIP	680	5%	1/10W
R945	1-216-819-11	METAL CHIP	680	5%	1/10W
R946	1-216-819-11	METAL CHIP	680	5%	1/10W
R947	1-216-819-11	METAL CHIP	680	5%	1/10W
R951	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R952	1-216-821-11	METAL CHIP	1K	5%	1/10W
R953	1-216-821-11	METAL CHIP	1K	5%	1/10W
R954	1-216-819-11	METAL CHIP	680	5%	1/10W
R955	1-216-819-11	METAL CHIP	680	5%	1/10W
R956	1-216-819-11	METAL CHIP	680	5%	1/10W
R957	1-216-819-11	METAL CHIP	680	5%	1/10W
R962	1-216-813-11	METAL CHIP	220	5%	1/10W
R963	1-216-813-11	METAL CHIP	220	5%	1/10W
R967	1-216-819-11	METAL CHIP	680	5%	1/10W
R972	1-216-813-11	METAL CHIP	220	5%	1/10W
R973	1-216-813-11	METAL CHIP	220	5%	1/10W
R977	1-216-819-11	METAL CHIP	680	5%	1/10W
R980	1-216-821-11	METAL CHIP	1K	5%	1/10W
R981	1-216-817-11	METAL CHIP	470	5%	1/10W
R983	1-216-821-11	METAL CHIP	1K	5%	1/10W
R984	1-216-821-11	METAL CHIP	1K	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R987	1-216-819-11	METAL CHIP	680	5%	1/10W
R990	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R991	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R992	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R994	1-216-851-11	METAL CHIP	330K	5%	1/10W
R995	1-216-857-11	METAL CHIP	1M	5%	1/10W
R996	1-216-821-11	METAL CHIP	1K	5%	1/10W
R997	1-216-821-11	METAL CHIP	1K	5%	1/10W
R998	1-216-821-11	METAL CHIP	1K	5%	1/10W
R999	1-216-864-11	METAL CHIP	0	5%	1/10W
		< SWITCH >			
S902	1-771-884-11	SWITCH, TACTILE (WITH LED) (SOURCE)			
S906	1-771-884-11	SWITCH, TACTILE (WITH LED) (MODE, ◄I►)			
S922	1-771-884-11	SWITCH, TACTILE (WITH LED) (D-BASS)			
**********					
	A-3340-324-A	MAIN BOARD, COMPLETE			
		**********			
*	3-040-998-01	BRACKET (IC)			
*	3-224-897-11	HEAT SINK			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			

Ref. No.	Part No.	Description			Remark
		< SHORT/CAPACITOR >			
C1	1-216-295-11	SHORT	0		
C3	1-126-934-11	ELECT	220uF	20%	16V
C4	1-124-234-00	ELECT	22uF	20%	16V
C5	1-124-584-00	ELECT	100uF	20%	10V
C6	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C7	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C8	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C9	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C10	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C11	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C12	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C13	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C14	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C15	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C16	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C17	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C18	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C19	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C20	1-124-234-00	ELECT	22uF	20%	16V
C21	1-162-913-11	CERAMIC CHIP	8PF	0.5PF	50V
C22	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C23	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C24	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C25	1-124-233-11	ELECT	10uF	20%	16V
C26	1-124-234-00	ELECT	22uF	20%	16V
C27	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C28	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C29	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C30	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C51	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C52	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C55	1-124-234-00	ELECT	22uF	20%	16V
C56	1-124-234-00	ELECT	22uF	20%	16V
C57	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C58	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C61	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C62	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C101	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C102	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C103	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C104	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C105	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C106	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C107	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C109	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C110	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C111	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C112	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C120	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C121	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C122	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C141	1-124-233-11	ELECT	10uF	20%	16V
C142	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C151	1-104-700-11	CERAMIC CHIP	0.027uF	10%	16V
C152	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C153	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C171	1-124-233-11	ELECT	10uF	20%	16V
C174	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C175	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C181	1-124-233-11	ELECT	10uF	20%	16V
C183	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C184	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C185	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C191	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C202	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C204	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C205	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C206	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C207	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C209	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C210	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C212	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C241	1-124-233-11	ELECT	10uF	20%	16V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C250	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C251	1-104-700-11	CERAMIC CHIP	0.027uF	10%	16V
C252	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C253	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C254	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C255	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C256	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C271	1-124-233-11	ELECT	10uF	20%	16V
C274	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C275	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C281	1-124-233-11	ELECT	10uF	20%	16V
C283	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C284	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C285	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C300	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C301	1-124-234-00	ELECT	22uF	20%	16V
C302	1-131-651-21	TANTALUM CHIP	10uF	20%	16V
C303	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C332	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C333	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C334	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C335	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C336	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C337	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C338	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C339	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C340	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C341	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C342	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C343	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C344	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C345	1-124-234-00	ELECT	22uF	20%	16V
C346	1-124-584-00	ELECT	100uF	20%	10V
C350	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C351	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C352	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C353	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C354	1-124-233-11	ELECT	10uF	20%	16V
C355	1-124-234-00	ELECT	22uF	20%	16V
C356	1-126-934-11	ELECT	220uF	20%	16V
C357	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C358	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C359	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C360	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C361	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C362	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C363	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C364	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C365	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C366	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C367	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C368	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C369	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C501	1-124-589-11	ELECT	47uF	20%	16V
C503	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C504	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C505	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C506	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C507	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C509	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C511	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C515	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C532	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C533	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C534	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C543	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C550	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C551	1-125-710-11	DOUBLE LAYER	0.1F		5.5V
C552	1-126-934-11	ELECT	220uF	20%	16V
C553	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C554	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C563	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C571	1-126-160-11	ELECT	1uF	20%	50V
C580	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C581	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C582	1-126-934-11	ELECT	220uF	20%	16V
C602	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C611	1-124-233-11	ELECT	10uF	20%	16V
C612	1-124-233-11	ELECT	10uF	20%	16V
C614	1-124-233-11	ELECT	10uF	20%	16V
C615	1-124-233-11	ELECT	10uF	20%	16V
C616	1-124-233-11	ELECT	10uF	20%	16V
C617	1-124-233-11	ELECT	10uF	20%	16V
C622	1-124-589-11	ELECT	47uF	20%	16V
C623	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C701	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C702	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V

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Ref. No.	Part No.	Description				Remark
C703	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C705	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C707	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C708	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C709	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C710	1-163-227-11	CERAMIC CHIP	10PF	0.5PF		50V
C752	1-164-505-11	CERAMIC CHIP	2.2uF			16V
C753	1-164-505-11	CERAMIC CHIP	2.2uF			16V
C754	1-126-157-11	ELECT	10uF	20%		16V
C755	1-126-157-11	ELECT	10uF	20%		16V
C756	1-164-505-11	CERAMIC CHIP	2.2uF			16V
C781	1-107-885-31	ELECT	3300uF	20%		16V
C782	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
C783	1-163-009-11	CERAMIC CHIP	0.001uF	10%		50V
C786	1-109-982-11	CERAMIC CHIP	1uF	10%		10V
C787	1-109-982-11	CERAMIC CHIP	1uF	10%		10V
C888	1-163-077-00	CERAMIC CHIP	0.1uF	10%		25V
C889	1-165-319-11	CERAMIC CHIP	0.1uF			50V
C998	1-163-013-11	CERAMIC CHIP	0.0022uF	10%		50V
C999	1-107-826-11	CERAMIC CHIP	0.1uF	10%		16V
		< CONNECTOR >				
CN301	1-785-694-11	CONNECTOR, FFC/FPC 7P				
* CN351	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P				
CN581	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)				
CN701	1-794-311-21	PLUG, CONNECTOR 12P				
CN781	1-774-701-11	PIN, CONNECTOR 16P				
		< SURGE PROTECTOR >				
CP1	1-803-902-21	PROTECTOR CHIP, SURGE				
		< DIODE >				
D1	8-719-040-04	DIODE	MA721WK-(TX)			
D2	8-719-914-42	DIODE	DA204K-T-146			
D51	6-500-023-01	DIODE	MM3Z5V6ST1			
D52	8-719-423-10	DIODE	MA8100-M-TX			
D351	6-500-028-01	DIODE	MM3Z9V1ST1			
D352	8-719-970-02	DIODE	1SR139-400T-32			
D501	8-719-988-61	DIODE	1SS355TE-17			
D552	8-719-067-56	DIODE	MA112-TX			
D581	6-500-031-01	DIODE	MM3Z18VST1			
D582	6-500-024-01	DIODE	MM3Z6V2ST1			
D584	6-500-031-01	DIODE	MM3Z18VST1			
D585	8-719-072-70	DIODE	MA2ZD14001S0			
D586	6-500-031-01	DIODE	MM3Z18VST1			
D610	8-719-970-02	DIODE	1SR139-400T-32			
D611	8-719-970-02	DIODE	1SR139-400T-32			
D613	8-719-970-02	DIODE	1SR139-400T-32			
D614	8-719-970-02	DIODE	1SR139-400T-32			
D622	8-719-988-61	DIODE	1SS355TE-17			
D624	6-500-024-01	DIODE	MM3Z6V2ST1			
D703	8-719-109-97	DIODE	MA4068-M (TA)			
D704	8-719-109-97	DIODE	MA4068-M (TA)			
D705	8-719-109-97	DIODE	MA4068-M (TA)			
D706	8-719-034-94	DIODE	MA4180-M (TA)			
D707	8-719-109-97	DIODE	MA4068-M (TA)			
D708	8-719-109-97	DIODE	MA4068-M (TA)			
D709	8-719-109-97	DIODE	MA4068-M (TA)			

Ref. No.	Part No.	Description				Remark
D710	6-500-025-01	DIODE	MM3Z6V8ST1			
D721	8-719-079-42	DIODE	1ZB22 (TPA3)			
D722	8-719-079-42	DIODE	1ZB22 (TPA3)			
D723	8-719-079-42	DIODE	1ZB22 (TPA3)			
D724	8-719-079-42	DIODE	1ZB22 (TPA3)			
D731	8-719-079-42	DIODE	1ZB22 (TPA3)			
D732	8-719-079-42	DIODE	1ZB22 (TPA3)			
D733	8-719-079-42	DIODE	1ZB22 (TPA3)			
D734	8-719-079-42	DIODE	1ZB22 (TPA3)			
D781	8-719-049-38	DIODE	1N5404TU			
		< IC >				
IC1	8-759-586-59	IC	TB2118F-EL-S			
IC301	8-752-079-78	IC	CXA2509AQ-T4			
IC330	8-759-827-11	IC	LC75421M-TLM			
IC351	8-759-527-33	IC	LB1930M-TLM			
IC501	6-801-204-03	IC	MN101C49GYA2			
IC551	8-759-682-69	IC	XC61CN4302MR			
IC581	8-759-449-89	IC	BA8270F-E2			
IC611	8-759-347-49	IC	BA3918-V2			
IC751	8-759-827-14	IC	TA8268AH			
		< JACK >				
J1	1-815-185-12	JACK (ANT) (FM/AM ANTENNA)				
J331	1-774-699-12	JACK, PIN 4P (BUS AUDIO IN, AUDIO OUT)				
		< RESISTOR/CAPACITOR >				
JC1	1-216-295-11	SHORT	0			
JC18	1-216-296-11	SHORT	0			
JC28	1-216-296-11	SHORT	0			
JC41	1-216-296-11	SHORT	0			
JC49	1-216-295-11	SHORT	0			
JC50	1-216-296-11	SHORT	0			
JC51	1-216-295-11	SHORT	0			
JC52	1-216-296-11	SHORT	0			
JC55	1-162-927-11	CERAMIC CHIP	100PF	5%		50V
JC56	1-164-489-11	CERAMIC CHIP	0.22uF	10%		16V
JC57	1-216-295-11	SHORT	0			
JC58	1-216-295-11	SHORT	0			
JC60	1-216-296-11	SHORT	0			
JC62	1-216-295-11	SHORT	0			
JC63	1-216-295-11	SHORT	0			
JC64	1-216-296-11	SHORT	0			
JC121	1-216-296-11	SHORT	0			
JC141	1-216-296-11	SHORT	0			
JC160	1-216-296-11	SHORT	0			
JC171	1-216-296-11	SHORT	0			
JC172	1-216-296-11	SHORT	0			
JC181	1-216-296-11	SHORT	0			
JC182	1-216-296-11	SHORT	0			
JC251	1-216-296-11	SHORT	0			
JC302	1-216-295-11	SHORT	0			
JC303	1-216-295-11	SHORT	0			
JC330	1-216-296-11	SHORT	0			
JC331	1-216-295-11	SHORT	0			
JC332	1-216-295-11	SHORT	0			
JC333	1-216-296-11	SHORT	0			

Ref. No.	Part No.	Description			Remark
JC334	1-216-296-11	SHORT	0		
JC335	1-216-295-11	SHORT	0		
JC336	1-216-296-11	SHORT	0		
JC351	1-216-295-11	SHORT	0		
JC501	1-216-296-11	SHORT	0		
JC502	1-216-295-11	SHORT	0		
JC503	1-216-296-11	SHORT	0		
JC504	1-216-295-11	SHORT	0		
JC505	1-216-845-11	METAL CHIP	100K	5%	1/10W
JC506	1-216-296-11	SHORT	0		
JC520	1-216-296-11	SHORT	0		
JC533	1-216-295-11	SHORT	0		
JC540	1-216-295-11	SHORT	0		
JC541	1-216-295-11	SHORT	0		
JC550	1-216-295-11	SHORT	0		
JC551	1-216-296-11	SHORT	0		
JC552	1-216-295-11	SHORT	0		
JC557	1-216-296-11	SHORT	0		
JC560	1-216-296-11	SHORT	0		
JC561	1-216-296-11	SHORT	0		
JC563	1-216-295-11	SHORT	0		
JC576	1-216-296-11	SHORT	0		
JC580	1-216-295-11	SHORT	0		
JC581	1-216-295-11	SHORT	0		
JC582	1-216-295-11	SHORT	0		
JC584	1-216-296-11	SHORT	0		
JC585	1-216-296-11	SHORT	0		
JC586	1-216-296-11	SHORT	0		
JC588	1-216-295-11	SHORT	0		
JC601	1-216-295-11	SHORT	0		
JC602	1-216-295-11	SHORT	0		
JC611	1-216-295-11	SHORT	0		
JC612	1-216-295-11	SHORT	0		
JC621	1-216-296-11	SHORT	0		
JC622	1-216-295-11	SHORT	0		
JC705	1-216-295-11	SHORT	0		
JC709	1-216-296-11	SHORT	0		
JC710	1-216-296-11	SHORT	0		
JC752	1-216-296-11	SHORT	0		
JC755	1-216-296-11	SHORT	0		
JC756	1-216-295-11	SHORT	0		
JC782	1-216-296-11	SHORT	0		
		< COIL/SHORT >			
L1	1-410-508-11	INDUCTOR	8.2uH		
L50	1-410-989-11	INDUCTOR	0.47uH		
L51	1-410-509-11	INDUCTOR	10uH		
L52	1-410-501-11	INDUCTOR	2.2uH		
L58	1-410-509-11	INDUCTOR	10uH		
L59	1-410-509-11	INDUCTOR	10uH		
L100	1-424-759-11	COIL (AM ANT)			
L501	1-410-501-11	INDUCTOR	2.2uH		
L755	1-216-295-11	SHORT	0		
L781	1-419-476-11	CHOKE COIL	250uH		
		< TRANSISTOR >			
Q51	8-729-106-68	TRANSISTOR	2SD1664-T100-R		
Q52	8-729-106-68	TRANSISTOR	2SD1664-T100-R		

Ref. No.	Part No.	Description			Remark
Q53	8-729-047-76	TRANSISTOR	FMC2A-T148		
Q55	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q171	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q181	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q271	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q281	8-729-920-21	TRANSISTOR	DTC314TK-T-146		
Q351	8-729-015-11	TRANSISTOR	2SD1802FAST-TL		
Q352	8-729-047-76	TRANSISTOR	FMC2A-T148		
Q353	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q354	8-729-106-60	TRANSISTOR	2SB1132-T100-R		
Q551	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q571	8-729-120-28	TRANSISTOR	2SC2412K-T-146-QR		
Q581	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q601	8-729-106-60	TRANSISTOR	2SB1132-T100-R		
Q602	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q621	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q622	8-729-021-94	TRANSISTOR	2SK1657-T1B		
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3	1-216-811-11	METAL CHIP	150	5%	1/10W
R11	1-216-834-11	METAL CHIP	12K	5%	1/10W
R12	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R13	1-216-809-11	METAL CHIP	100	5%	1/10W
R14	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R15	1-216-821-11	METAL CHIP	1K	5%	1/10W
R16	1-216-833-11	METAL CHIP	10K	5%	1/10W
R17	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R18	1-216-841-11	METAL CHIP	47K	5%	1/10W
R45	1-216-821-11	METAL CHIP	1K	5%	1/10W
R51	1-216-821-11	METAL CHIP	1K	5%	1/10W
R52	1-216-813-11	METAL CHIP	220	5%	1/10W
R53	1-216-821-11	METAL CHIP	1K	5%	1/10W
R54	1-216-821-11	METAL CHIP	1K	5%	1/10W
R55	1-216-841-11	METAL CHIP	47K	5%	1/10W
R56	1-216-817-11	METAL CHIP	470	5%	1/10W
R60	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R61	1-216-821-11	METAL CHIP	1K	5%	1/10W
R62	1-216-815-11	METAL CHIP	330	5%	1/10W
R101	1-216-817-11	METAL CHIP	470	5%	1/10W
R102	1-216-851-11	METAL CHIP	330K	5%	1/10W
R103	1-216-835-11	METAL CHIP	15K	5%	1/10W
R104	1-216-836-11	METAL CHIP	18K	5%	1/10W
R111	1-216-845-11	METAL CHIP	100K	5%	1/10W
R112	1-216-845-11	METAL CHIP	100K	5%	1/10W
R121	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R141	1-216-833-11	METAL CHIP	10K	5%	1/10W
R142	1-216-809-11	METAL CHIP	100	5%	1/10W
R151	1-216-821-11	METAL CHIP	1K	5%	1/10W
R152	1-216-839-11	METAL CHIP	33K	5%	1/10W
R171	1-216-809-11	METAL CHIP	100	5%	1/10W
R175	1-216-841-11	METAL CHIP	47K	5%	1/10W
R176	1-216-809-11	METAL CHIP	100	5%	1/10W
R177	1-216-821-11	METAL CHIP	1K	5%	1/10W
R181	1-216-809-11	METAL CHIP	100	5%	1/10W
R185	1-216-841-11	METAL CHIP	47K	5%	1/10W
R186	1-216-809-11	METAL CHIP	100	5%	1/10W
R187	1-216-821-11	METAL CHIP	1K	5%	1/10W

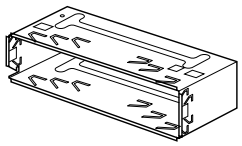
MAIN

Ref. No.	Part No.	Description			Remark
R191	1-216-841-11	METAL CHIP	47K	5%	1/10W
R192	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R201	1-216-817-11	METAL CHIP	470	5%	1/10W
R202	1-216-851-11	METAL CHIP	330K	5%	1/10W
R203	1-216-835-11	METAL CHIP	15K	5%	1/10W
R204	1-216-836-11	METAL CHIP	18K	5%	1/10W
R211	1-216-845-11	METAL CHIP	100K	5%	1/10W
R212	1-216-845-11	METAL CHIP	100K	5%	1/10W
R241	1-216-833-11	METAL CHIP	10K	5%	1/10W
R242	1-216-809-11	METAL CHIP	100	5%	1/10W
R251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R252	1-216-839-11	METAL CHIP	33K	5%	1/10W
R271	1-216-809-11	METAL CHIP	100	5%	1/10W
R275	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-821-11	METAL CHIP	1K	5%	1/10W
R281	1-216-809-11	METAL CHIP	100	5%	1/10W
R285	1-216-841-11	METAL CHIP	47K	5%	1/10W
R287	1-216-821-11	METAL CHIP	1K	5%	1/10W
R301	1-216-836-11	METAL CHIP	18K	5%	1/10W
R302	1-216-845-11	METAL CHIP	100K	5%	1/10W
R303	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R304	1-216-835-11	METAL CHIP	15K	5%	1/10W
R305	1-216-797-11	METAL CHIP	10	5%	1/10W
R306	1-216-849-11	METAL CHIP	220K	5%	1/10W
R331	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R332	1-216-834-11	METAL CHIP	12K	5%	1/10W
R333	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R334	1-216-834-11	METAL CHIP	12K	5%	1/10W
R350	1-216-809-11	METAL CHIP	100	5%	1/10W
R351	1-216-821-11	METAL CHIP	1K	5%	1/10W
R352	1-249-383-11	CARBON	1.5	5%	1/4W
R353	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R354	1-216-833-11	METAL CHIP	10K	5%	1/10W
R359	1-216-809-11	METAL CHIP	100	5%	1/10W
R360	1-216-809-11	METAL CHIP	100	5%	1/10W
R361	1-216-809-11	METAL CHIP	100	5%	1/10W
R362	1-216-821-11	METAL CHIP	1K	5%	1/10W
R363	1-216-821-11	METAL CHIP	1K	5%	1/10W
R364	1-216-821-11	METAL CHIP	1K	5%	1/10W
R365	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-837-11	METAL CHIP	22K	5%	1/10W
R507	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R508	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R509	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R512	1-216-845-11	METAL CHIP	100K	5%	1/10W
R516	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R520	1-216-821-11	METAL CHIP	1K	5%	1/10W
R521	1-216-821-11	METAL CHIP	1K	5%	1/10W
R522	1-216-821-11	METAL CHIP	1K	5%	1/10W
R523	1-216-821-11	METAL CHIP	1K	5%	1/10W
R526	1-216-845-11	METAL CHIP	100K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-845-11	METAL CHIP	100K	5%	1/10W
R530	1-216-845-11	METAL CHIP	100K	5%	1/10W
R534	1-216-845-11	METAL CHIP	100K	5%	1/10W
R535	1-249-417-11	CARBON	1K	5%	1/4W
R536	1-216-845-11	METAL CHIP	100K	5%	1/10W
R538	1-216-813-11	METAL CHIP	220	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-845-11	METAL CHIP	100K	5%	1/10W
R543	1-216-845-11	METAL CHIP	100K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R546	1-216-845-11	METAL CHIP	100K	5%	1/10W
R547	1-216-845-11	METAL CHIP	100K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
R555	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R556	1-208-806-11	RES-CHIP	10K	0.5%	1/10W
R557	1-216-845-11	METAL CHIP	100K	5%	1/10W
R558	1-216-813-11	METAL CHIP	220	5%	1/10W
R560	1-216-845-11	METAL CHIP	100K	5%	1/10W
R562	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-809-11	METAL CHIP	100	5%	1/10W
R564	1-216-809-11	METAL CHIP	100	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-821-11	METAL CHIP	1K	5%	1/10W
R568	1-216-821-11	METAL CHIP	1K	5%	1/10W
R569	1-216-821-11	METAL CHIP	1K	5%	1/10W
R570	1-216-821-11	METAL CHIP	1K	5%	1/10W
R571	1-216-841-11	METAL CHIP	47K	5%	1/10W
R573	1-249-425-11	CARBON	4.7K	5%	1/4W
R574	1-216-841-11	METAL CHIP	47K	5%	1/10W
R575	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R576	1-216-821-11	METAL CHIP	1K	5%	1/10W
R577	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-849-11	METAL CHIP	220K	5%	1/10W
R579	1-216-821-11	METAL CHIP	1K	5%	1/10W
R580	1-216-809-11	METAL CHIP	100	5%	1/10W
R581	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-835-11	METAL CHIP	15K	5%	1/10W
R583	1-216-809-11	METAL CHIP	100	5%	1/10W
R584	1-216-805-11	METAL CHIP	47	5%	1/10W
R590	1-216-845-11	METAL CHIP	100K	5%	1/10W
R591	1-216-821-11	METAL CHIP	1K	5%	1/10W
R592	1-216-821-11	METAL CHIP	1K	5%	1/10W
R593	1-216-821-11	METAL CHIP	1K	5%	1/10W
R594	1-216-821-11	METAL CHIP	1K	5%	1/10W
R595	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R596	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R597	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R598	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R601	1-249-397-11	CARBON	22	5%	1/4W
R602	1-249-397-11	CARBON	22	5%	1/4W
R603	1-249-399-11	CARBON	33	5%	1/4W
R604	1-249-399-11	CARBON	33	5%	1/4W
R606	1-216-073-00	RES-CHIP	10K	5%	1/10W
R607	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R608	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R610	1-216-821-11	METAL CHIP	1K	5%	1/10W
R611	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R620	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R622	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R623	1-216-805-11	METAL CHIP	47	5%	1/10W
R704	1-216-809-11	METAL CHIP	100	5%	1/10W
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R706	1-216-821-11	METAL CHIP	1K	5%	1/10W
R707	1-216-821-11	METAL CHIP	1K	5%	1/10W
R708	1-216-821-11	METAL CHIP	1K	5%	1/10W
R710	1-216-797-11	METAL CHIP	10	5%	1/10W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
S551	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR >			
TH501	1-803-350-21	THERMISTOR, POSITIVE			
		< TUNER UNIT >			
TU1	1-693-511-21	TUNER UNIT (FAE347-A24)			
		< VIBRATOR >			
X1	1-781-246-21	VIBRATOR, CRYSTAL (10.25MHz)			
X501	1-795-134-11	VIBRATOR, CRYSTAL (18.342MHz)			
X502	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		MISCELLANEOUS			
		**********			
14	1-776-206-21	CORD (WITH CONNECTOR) (POWER)			
64	1-694-883-11	CONDUCTIVE BOARD, CONNECTION			
F781	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A/32V)			
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)			
LCD901	1-804-622-11	DISPLAY PANEL, LIQUID CRYSTAL			
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)			
**********					
		ACCESSORIES			
		**********			
	3-238-177-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)			
	3-238-178-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)			
**********					

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
501	X-3381-409-1	FRAME ASSY, FITTING	
502	3-236-673-01	COLLAR	
503	3-934-325-01	SCREW, +K (5X8) TAPPING	
504	3-233-644-02	SPRING, FITTING	
505	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	

501



FRAME ASSY
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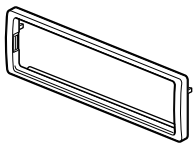
502

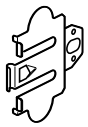


COLLAR
× 1

503

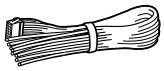
+K 5X8
× 4

504



SPRING, FITTING
× 2

505



POWER CORD
× 1

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002.02	New
1.1	2003.01	Change of Part No. for IC501 on MAIN board (ECN-CSA06072)